Embedded System Platform Solutions

As the leading Embedded SBC provider, IEI continues to extend the product footprint from component level to system integration service. Our strong knowledge of market and technology innovation offers reliability, flexibility and interoperability for all of our embedded products with choices of size, performance and features.

NEW for 2013

1. Wide Temperature Ruggedize System

Model Name	Processor
TANK-600-CV	Intel® D2550 1.86 GHz dual-core processor, Intel® N2600 1.6 GHz dual-core processor
TANK-820-H61	2nd Generation Intel® Core™ i5 / i3 / Pentium® processor, 35W
TANK-800-D525	Intel® D525 1.8 GHz dual-core processor
TANK-720-Q67	2nd Generation Intel® Core™ i5 / i3 / Pentium® processor, 35W
TANK-700-QM67	2nd Generation Intel® Core™ i5 / i3 / Pentium® processor, 35W
TANK-GM45A	Intel® Core™2 Duo Processor P8400 , Intel® Celeron® Processor M 575
TANK-101-D525	Intel® dual-core D525 1.8 GHz, Intel® dual-core N455 1.66 GHz

2. Digital Signage Embedded System

Model Name	Processor
ECN-780-Q67	2nd Generation Intel® Core™ i5 / i3 / Pentium® processor
ECN-680A-H61	2nd Generation Intel® Core™ i5 / i3 / Pentium® processor
IOPS-H61/Q67	Intel® Celeron® dual-core G530 2.4 GHz / Intel® Core™ i5-2390T 2.7 GHz
IDS-H61/Q77	Intel® Celeron® dual-core G530T 2.0 GHz / Intel® i5-3470T 2.9 GHz

3. Compact Size Embedded System

Model Name	Processor
DRPC-100-CV	Intel® Atom™ N2800 1.86GHz
uIBX-210-CV	Intel® Atom™ N2600 1.6GHz
uIBX-200 Series	VIA® Eden™ ULV 1GHz Intel® Atom™ Z510P 1.1GHz
IBX-530-945GSE	Intel® Atom™ N270 1.6GHz

4. SBC Embedded System (ECW/ECN series embedded system)

Model Name	MB Model No.	Processor
ECN-360A-HM65	NANO-HM651-847E	Intel® Celeron® 847E
ECN-360A-D2550	NANO-CV-D25502	Intel® Atom™ D2550
ECW-281B/D2550	WAFER-CV-D25501	Intel® Atom™ D2550
ECW-281B/B2-D525	WAFER-PV-D5252	Intel® Atom™ D525
ECW-281B/B2-N270	WAFER-945GSE	Intel® Atom™ N270
ECN-581A-QM57	NANO-QM57A	Intel® Core™ i5-520M

5. Embedded Chassis Series

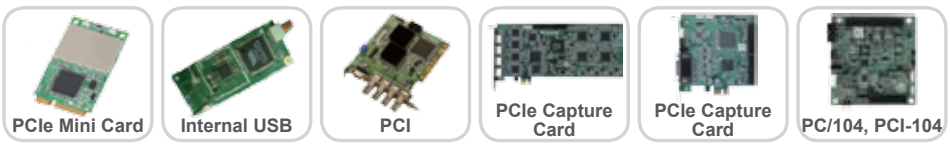
Model Name	Motherboard Model	Dimensions (W x D x H)
EBC-3680	KINO-AQ870, KINO-AQ670, KINO-AH611, KINO-AH612, KINO-G410, KINO-CVR-D27002, KINO-PV-D4253/D5253, KINO-945GSE, KINO-945GSE3	220 x 310 x 270 mm
EBC-3220	KINO-DQM871, KINO-QM770, KINO-CV/D25501/N26001, KINO-QM670, KINO-HM551, KINO-PVN-D4251/D5251, KINO-PV-D4252/D5252, KINO-945GSE2	190 x 180 x 55 mm
EBC-3200	KINO-DQM871, KINO-QM770, KINO-CV/D25501/N26001, KINO-QM670, KINO-HM551, KINO-PVN-D4251/D5251, KINO-PV-D4252/D5252, KINO-945GSE2	260 x 180 x 55 mm
EBC-3100 (PCI/PCIe Expansion)	KINO-AQ870, KINO-AQ670, KINO-AH611, KINO-AH612, KINO-G410, KINO-CVR-D27002, KINO-PV-D4253/D5253, KINO-945GSE, KINO-945GSE3	250 x 260 x 156 mm
EBC-3000	KINO-AQ870, KINO-AQ670, KINO-AH611, KINO-AH612, KINO-G410, KINO-CVR-D27002, KINO-PV-D4253/D5253, KINO-945GSE, KINO-945GSE3	230 x 280 x 88 mm
EBC-2102	NANO-PV-D5251, NANO-PV-D4251, NANO-PV-N4551	262 x 134 x 56 mm
EBC-2101	NANO-945GSE	262 x 134 x 56 mm
EBC-2100	NANO-LX	262 x 134 x 56 mm
ECN-581A	NANO-PV-D5251	138 x 180 x 50 mm

IEI Products Only

Supported OS List	
Microsoft OS	Linux OS
1. Windows® 8	1. RedHat 9
2. Windows® XP	2. RedHat RHEL- 5.4
3. Windows® XP Embedded	3. Fedora Core 7, 8, 10, 11, 12
4. Windows® Vista	4. Ubuntu 6.10, 7.10, 8.10
5. Windows® 7	5. Debien 4.0, 5.0
6. Windows® CE 6.0	6. SuSe 10.3, 11.2

Versatile Expansion Interface

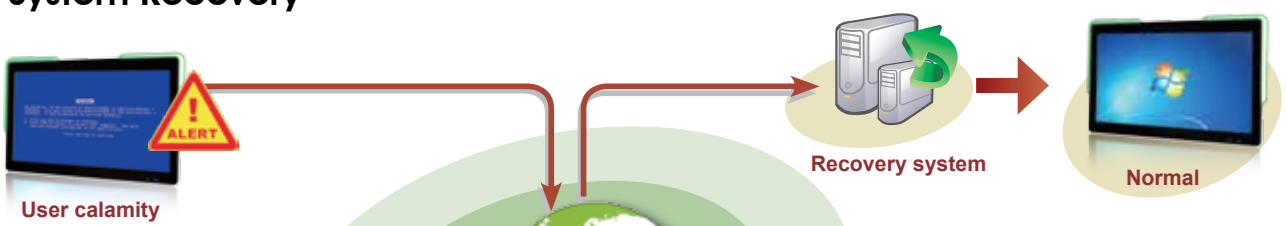
The IEI embedded systems provide various kinds of expansion interfaces inside a compact enclosure, providing the flexibility of function enhancement and the ease of system integration.



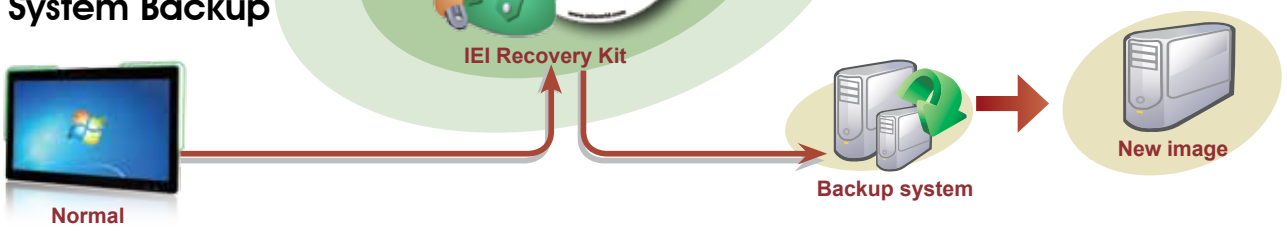
IEI One Key Recovery Solution

The IEI recovery CD includes a system recovery software developed by IEI with Windows® PE 2.0. The recovery CD allows you to create full system backup and restore from system failures. Users don't need to buy other system backup and recovery tools.

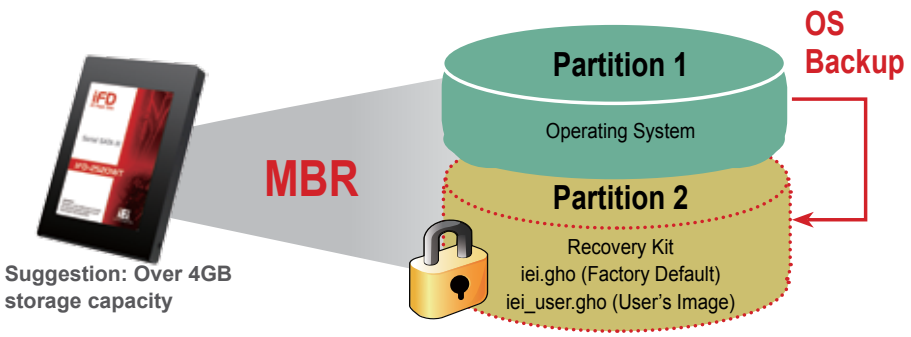
System Recovery



System Backup



Recovery Partition

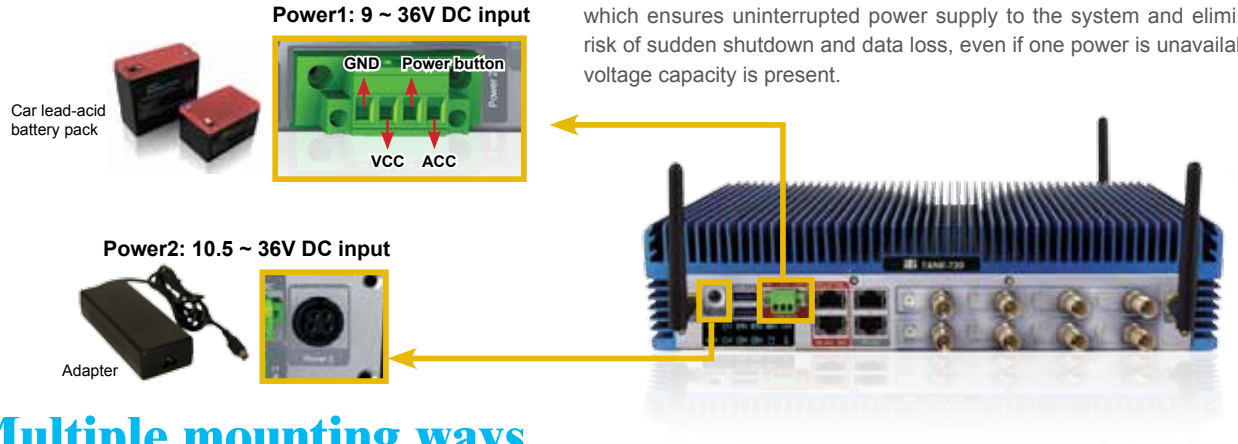


Redundant dual DC power input

The redundant dual DC power input design increases the reliability of the system while preventing data loss and system corruption from sudden power failure. When main power is unavailable or low voltage capacity is present, the system can switch to the second power input instantly and without interruption.

There are two power connectors on the I/O panel. The Power 1 connector is a terminal block that supports ACC On signal. The Power 2 connector is a DIN connector that directly connects to a power adapter.

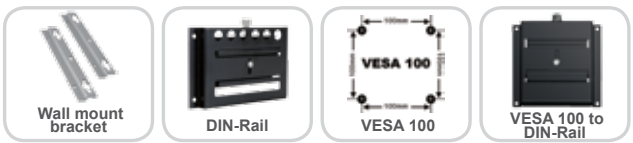
When the system is in ACC On mode, the main power input is from the Power 1 connector. When the system is in ACC Off mode, the main power input is from the Power 2 connector. The ACC on/off mode is selected by the ACC on/off switch on the I/O panel.



The TANK-700/720 series adopts redundant dual DC power input design, which ensures uninterrupted power supply to the system and eliminates the risk of sudden shutdown and data loss, even if one power is unavailable or low voltage capacity is present.

Multiple mounting ways

IEI provides multiple mounting ways for users to fulfill different environment. With VESA 75/100, DIN-Rail, Wall mount, users can have great flexibility to meet their requirement. Customers can choose the most suitable embedded systems from the selection guide.



Various segments with different features

The IEI recovery CD includes a system recovery software developed by IEI with Windows® PE 2.0. The recovery CD allows you to create full system backup and restore from system failures. Users don't need to buy other system backup and recovery tools.

Segments	Features
Wide Temp. Ruggedize	Wide temperature series, various fanless embbeded chassis for harsh environment
Digital Signage	Multiple video output with high resolution, the best choice for digital signage applications
Compact Size	Compact size with rich I/O, great solution for space-concerned environment
SBC Embedded	Embedded systems with standard NANO/WAFER motherboards
Embedded Chassis	Compatible with KINO, NANO series chassis

Low power solutions

With the Intel® Desktop / Mobile / Atom™ low power solution processors, the IEI embedded systems can provide more energy-saving products for users to create an eco-friendly environment.

Versatile peripherals for high flexibility

With the IEI flash storage / DRAM memory / cables / connectors / power supply, the users can have great flexibility for customization, meet different conditions on some changes.

Wide Temperature Ruggedize System

New

New

New

	Model Name	TANK-600-D2550	TANK-600-N2600	TANK-820-H61	TANK-800-D525
Chassis	Color	Black C + Silver	Black C + Silver	Black C + Silver	Black C + Silver
	Dimensions (WxDxH)	193.4 x 200 x 57 mm	193.4 x 200 x 57 mm	133 x 269 x 208 mm	136 x 219 x 188 mm
	System Fan	Fanless	Fanless	60 x 60 mm	Fanless
	Chassis Construction	Aluminum alloy	Aluminum alloy	Extruded aluminum alloy	Extruded aluminum alloy
Motherboard	CPU	Intel® D2550 1.86 GHz dual-core processor	Intel® N2600 1.6 GHz dual-core processor	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W	Intel® D525 1.8 GHz dual-core processor
	Chipset	Intel® NM10	Intel® NM10	Intel® H61	Intel® ICH8M
	System Memory	On-board DDR3 4GB	On-board DDR3 2GB	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)	On-board DDR3 1GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 3GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
	CompactFlash®	N/A	N/A	1 x CF Type II	1 x CF Type II
I/O interfaces	PS2 (KB/MS)	N/A	N/A	N/A	N/A
	USB 3.0	N/A	N/A	2	N/A
	USB 2.0	6	6	4	4
	Ethernet	2 x RJ-45 Realtek 8111E GbE LAN	2 x RJ-45 Realtek 8111E GbE LAN	2 x RJ-45 Realtek 8111E GbE LAN support ASF 2.0	2 x RJ-45 Realtek 8111E GbE LAN support ASF 2.0
	RS-232	6 COM: 6 x DB-9 16 COM: 14 x RS-232 by DB-78	6 COM: 6 x DB-9 16 COM: 14 x RS-232 by DB-78	4 x DB-9 2 x DB-9 w/isolation	4 x DB-9
	RS-422/485	2 x RS-232/422/485 by DB-9	2 x RS-232/422/485 by DB-9	2 x RJ-45	2 x RJ-45
	Digital I/O	N/A	N/A	8-bit Digital I/O, 4-bit input / 4-bit output	
	CAN-bus	N/A	N/A	N/A	N/A
	Display	1 x VGA	1 x VGA	1 x VGA, 1 x DVI-I	1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz	VGA: Up to 2048 x 1536 @ 75Hz	VGA: Up to 2048 x 1536 @ 75Hz DVI-I: Up to 1920 x 1080 @ 60Hz	VGA: Up to 2048 x 1536 @ 75Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Other	N/A	N/A	N/A	N/A
	Wireless	N/A	N/A	N/A	N/A
Expansions	PCI	N/A	N/A	2P1E: 2 x PCI, 1P2E: 1 x PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI
	PCIe	N/A	N/A	2P1E: One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	2P1E: One PCIe x4 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x2 (physical x16 slot)
	PCIe Mini	1 x Full Size (Support mSATA), 1 x Half size		N/A	N/A
Power	Power Input	Terminal Block: 9~36V DC	Terminal Block: 9~36V DC	Redundant dual DC input Terminal Block: 9~24V DC Jack: 9~24V	Redundant dual DC input Terminal Block: 9V (+/-0.3V) ~ 36V DC Jack : 10.5V (+/-0.3V)~36V
	Power Consumption	12V@2.2A (Intel® Atom™ D2550 with 4GB DDR3 memory)	12V@2.2A (Intel® Atom™ D2550 with 4GB DDR3 memory)	19V@3.5A (Intel® Core™ i3-2100 with 6GB DDR3 memory, w/o add-on card)	19V@1.73A (Intel® Atom™ D525 with 1GB DDR3 Memory)
Reliability	Mounting	VESA 100, DIN-Rail	VESA 100, DIN-Rail	Wall mount	Wall mount
	Operating Temperature	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis			
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)			
	Weight (Net/Gross)	2.2 Kg / 3 Kg	2.2 Kg / 3 Kg	4.2Kg/6.3Kg	2.6Kg/4.1Kg
	Safety / EMC	CE/FCC			
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded			

*Notes : Power adapter supports 0'C ~ 40'C

Wide Temperature Ruggedize System

-20°C~+70°C

-20°C~+70°C

	Model Name	TANK-720-Q67	TANK-700-QM67	TANK-GM45A	TANK-101B
Chassis	Color	Blue C + Silver	Black C + Silver	Silver	Cool Gray + Blue
	Dimensions (WxDxH)	310 x 200 x 70 mm	310 x 200 x 62 mm	310 x 200 x 55 mm	248 x 138 x 44 mm
	System Fan	Fanless	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy Heavy duty steel sheet		Aluminum alloy with heavy duty metal	
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W	2nd Generation Intel® -Core™ i5-2xxE, dual-core (above 2.5GHz), 35W -Core™ i3-2xxE, dual-core (above 2.2GHz), 35W -Celeron® B8xx, dual-core (above 1.6GHz), 35W	Intel® Core™ Duo P8400 2.26GHz Intel® Celeron® M 575 2.0GHz	Intel® Dual Core D525 1.8 GHz Intel® Dual Core N455 1.66 GHz
	Chipset	Intel® Q67	Intel® QM67	Intel® GM45 + ICH9M	Intel® ICH8M
	System Memory	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)		Pre-installed 2GB DDR2 SO-DIMM (System Max 2GB)	On-board DDR3 1GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 3GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
	CompactFlash®	N/A	N/A	N/A	1 x CF Type II
I/O interfaces	PS2 (KB/MS)	N/A	N/A	1	N/A
	USB 3.0	2	2	N/A	N/A
	USB 2.0	4	4	4	4
	Ethernet	2 x Combo (SFP Fiber / RJ-45) LAN1: Intel® 82579 with Intel® AMT 7.0 supported LAN2: Intel® 82583V Ethernet		2 x RJ-45 LAN1: Intel® 82574L Ethernet Controller LAN2: Intel® WG82567LM Ethernet PHY	2 x RJ-45 Realtek 8111E PCIe GbE
	RS-232	4 x DB-9, 2 x RJ-45 w/isolation	4 x DB-9, 2 x RJ-45 w/isolation	1 x DB-9 w/isolation	3 x DB-9
	RS-422/485	2 x RJ-45 with isolation	2 x RJ-45 with isolation	1 x DB-9 Default RS-422 w/isolation	1 x DB-9 Default RS-422 w/isolation
	Digital I/O	8-bit Digital IO, 4-bit input / 4-bit output		DIO signal for remote on / off control	N/A
	CAN-bus	1 x Phoenix terminal block	1 x Phoenix terminal block	N/A	2 x DB-9 CAN w/isolation
	Display	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	1 x VGA	1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz	VGA: Up to 2048 x 1536 @ 75Hz	VGA: Up to 2048 x 1536 @ 60Hz
	Audio	1 x Mic-in, 1 x Line-out	1 x Mic-in, 1 x Line-out	N/A	1 x Line-out, 1 x Mic-in
	Other	Optional 4-channel audio/video input PCIe Mini card		N/A	N/A
	Wireless	1 x 802.11a/b/g/n (optional)	1 x 802.11a/b/g/n (optional)	N/A	1 x 802.11b/g/n (optional)
Expansions	PCI	N/A	N/A	N/A	N/A
	PCIe	N/A	N/A	N/A	N/A
	PCIe Mini	3 x Full Size	3 x Full Size	N/A	1 x Full size (reserved for Wi-Fi module)
Power	Power Input	Redundant dual DC input Terminal Block: 9V (+/-0.3V) ~ 36V, DC Jack : 10.5V (+/-0.3V)~36V		Terminal / DC Jack: 12V DC	DC Jack: 9~36V DC
	Power Consumption	19V@3.1A (Intel® Core™ i3-2100T with 4GB DDR3 Memory)	19V@3.3A (Intel® Core™ i5-2540M with 4GB DDR3 Memory)	12V@3.85A (Intel® Core™ 2 Duo P8600 with DDR2 2GB)	12@1.85A (Intel® Atom™ D525 with DDR3 1GB)
Reliability	Mounting	Wall mount		Wall mount	Din-rail, wall mount
	Operating Temperature	-20°C ~50°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~60°C (D525 with air flow CF/SSD), 5% ~ 95%, non-condensing (N455 with air flow CF/SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis		Half-sine wave shock 3G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)		MIL-STD-810F 514.5C-1	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with CompactFlash® / SSD
	Weight (Net/Gross)	4.2Kg/6.9Kg	3.8Kg/6.5Kg	3.5Kg/4.2Kg	2.1Kg/3.9Kg
	Safety / EMC	CE/FCC			
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded			Microsoft® Windows® XP Embedded

*Notes : Power adapter supports 0'C ~ 40'C

TANK-600-D2550 N2600

■ Fanlesss Embedded System

■ Intel® Cerdarview Dual Core Atom™ CPU

New

Features

- Intel ® Dual Core D2550 1.86 GHz processor
  Intel® Dual Core N2600 1.6 GHz processor
- 8 COM model: 6 x RS-232, 2 x RS-232/422/485
  16 COM model: 14 x RS-232, 2 x RS-232/422/485
- 6 x USB 2.0
- Dual PCIe GbE LAN for high-speed network applications

Specifications

Model Name		TANK-600-D2550	TANK-600-N2600
Chassis	Color	Black C + Silver	
	Dimensions (WxDxH)	193.4 x 200 x 57 mm	
	System Fan	Fanless	
	Chassis Construction	Aluminum alloy	
Motherboard	CPU	Intel® D2550 1.86 GHz dual-core processor	Intel® N2600 1.6 GHz dual-core processor
	Chipset	Intel® NM10	
	System Memory	On-board DDR3 4GB	On-board DDR3 2GB
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	
I/O interfaces	USB 2.0	6	
	Ethernet	2 x RJ-45 Realtek 8111E GbE LAN	
	RS-232	6 COM: 6 x DB-9 16 COM: 14 x RS-232 by DB-78	
	RS-422/485	2 x RS-232/422/485 by DB-9	
	Display	1 x VGA	
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz	
	Audio	1 x Line-out, 1 x Mic-in	
Expansions	PCIe Mini	1 x Full Size (Support mSATA) 1 x Half size	
Power	Power Input	Terminal Block: 9~36V DC	
	Power Consumption	12V@2.2A (Intel® Atom™ D2550 with 4GB DDR3 memory)	
Reliability	Mounting	VESA 100, DIN-Rail	
	Operating Temperature	-20°C ~70°C with air flow (SSD), 5% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	
	Weight (Net/ Gross)	2.2 Kg / 3 Kg	
	Safety / EMC	CE/FCC	
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded	

Fulfill a great variety of applications

Wide range temperature

The TANK-600 supports -20°C~70°C wide range environment.
The best choice for some ruggedize applications.

Abundant COM ports

Supports up to 16 COM ports.

COM ports	16 COM model	8 COM model
RS-232	14	6
RS-232/422/484	2	2

Versatile mounting ways

The TANK-600 series can fulfill VESA 100/DIN-rail/Wall mount, providing users different ways to meet their applications.

Wall mount bracket

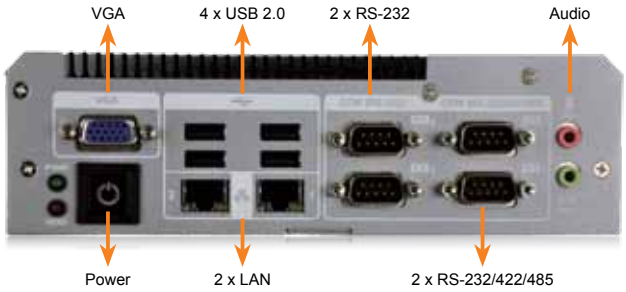
DIN-Rail

VESA 100

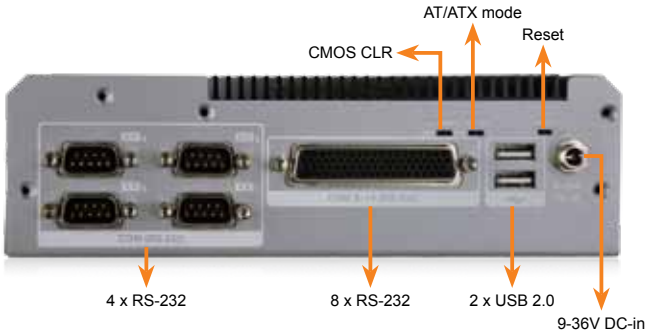
RS-232

RS-232 is a standard serial port to connect between DTE (Data Terminal Equipment) and DCE (Data Communication Equipment). With the advantage of long distance transmission and simple transmission line, the TANK-600 can fulfill users' demand to connect a large number of devices through the RS-232 serial ports.

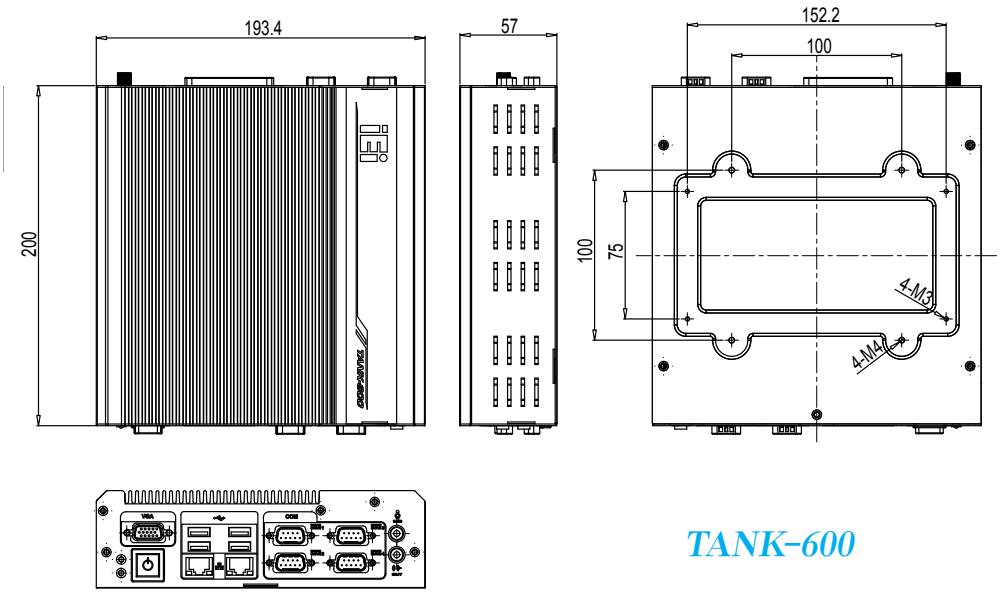
Front View



Rear View



Dimensions *(Unit: mm)*



TANK-600

Ordering Information

Part No.	Description
TANK-600-CV-D2550-16C/4G-R10	Extend temperature Fanless embedded system with Intel® Cedarview D2550 dual core 1.86GHz CPU, with 4G DDR3 RAM on-board, 1 x VGA, Dual GbE LAN, 6 x USB 2.0, 2 x RS-232/422/485, 14 x RS-232, R10, RoHS
TANK-600-CV-N2600-16C/2G-R10	Extend temperature Fanless embedded system with Intel® Cedarview N26001.6 GHz processor dual core CPU, with 2G DDR3 RAM on-board, 1 x VGA, Dual GbE LAN, 6 x USB 2.0, 2 x RS-232/422/485, 14 x RS-232, R10, RoHS
TANK-600-CV-D2550-8C/4G-R10	Extend temperature Fanless embedded system with Intel® Cedarview D2550 dual core 1.86GHz CPU, with 4G DDR3 RAM on-board, 1 x VGA, Dual GbE LAN, 6 x USB 2.0, 2 x RS-232/422/485, 6 x RS-232, R10, RoHS
TANK-600-CV-N2600-8C/2G-R10	Extend temperature Fanless embedded system with Intel® Cedarview N2600 1.6 GHz processor dual core CPU, with 2G DDR3 RAM on-board, 1 x VGA, Dual GbE LAN, 6 x USB 2.0, 2 x RS-232/422/485, 6 x RS-232, R10, RoHS

Options

Item	Part No.	Qty	Description
DIN-rail mounting kit	DK-84MB	1	DIN mount kit for embedded system, black, RoHS
VESA kit	AFLWK-19	1	VESA 100 mount kit

Packing List

Item	Part No.	Qty	Description
Utility CD		1	Drivers and user manual
One Key recovery CD	7B000-000938-RS	1	CD-ROM Disk, V1.3, RECOVERYV13.ISO, FOR ONE KEY RECOVERY, RoHS
Screw set		1	
Wall mount bracket	41019-1106L5-00-RS	1	WALL MOUNT BRACKET, HOLDER, NCT processing formation, TANK-600-CV, PAINTING, PMS 8401C, 41019-1106XX, NCT(N), SECC, VER:00, CCL, RoHS
Power adapter	63040-010065-010-RS	1	Adapter Power, FSP, FSP065-RAB, Vin: 90~264VAC, 65W, Dim:46.3*108.3*30mm, Plug=7.5mm, Cable=1500mm, Erp(NO LOAD 0.5W), Vout:,19VDC, Φ2.1/Φ5.5/lock, CCL, RoHS
Power cord	32702-000200-100-RS	1	POWER CORD, EUROPEAN CODE(VDE), 2, 1830MM, (A)PLUG(16A 250V)SH-005, (B)CONNECTOR(10A 250V)SH-006, Self-Man, CCL, RoHS
DB-78 to 8 COM port cable (TANK-600-CV-D2550/N2600-16C)	32005-002800-100-RS	1	8 X COM RS:232

TANK-800-D525
TANK-820-H61

- *Intel® D525 3-Slot Fanless Embedded System*
- *Intel® Sandy Bridge 3-Slot Embedded System*

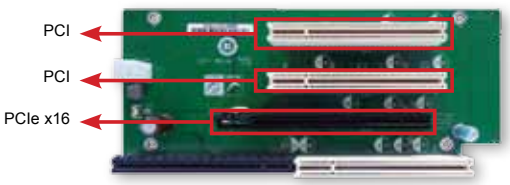
Features

- Intel® Atom™ D525 1.8GHz dual-core processor for TANK-800
  2nd Generation Intel® Core™ low power desktop processors for TANK-820
- On-board 1GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 3GB) for TANK-800
  On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10GB) for TANK-820
- Redundant dual wide range DC power support (TANK-800-D525: 9 ~36 VDC / TANK-820-H61: 9 ~ 24 VDC)
- Flexible PCI/PCIe expansion slots satisfy customized requirements
- Rich I/O functions satisfy various applications
- Extended temperature fanless design (TANK-800-D525)
- Dual PCIe GbE LAN for high-speed network applications
- One CompactFlash® socket

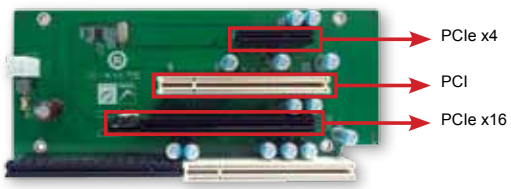
DDR3 1333 | Gigabit Ethernet Dual GbE | PCI/PCIe Expansion | Redundant Dual DC | RS-232 | MOUNT

Versatile Expansion Interface

The TANK-800/820 series has various kinds of expansion interfaces which allow you to connect additional circuits or expansion boards to the system via IEI riser cards. These expansion options provide flexible function enhancement and simplify system integration.



- **HPE-3S6 (2P1E)**



- **HPE-3S7 (1P2E)**

- The two types of backplane support standard PCI/PCIe cards with maximum dimensions (WxL): 111 x 190 mm
- The rated voltage and current of the backplane

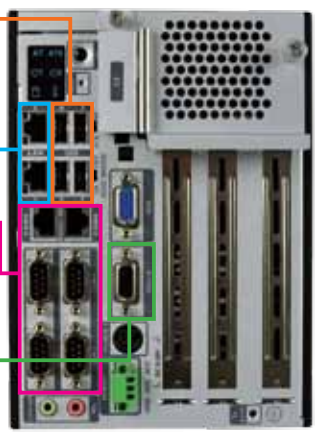
Voltage	Current
+5V	7A
+12V	3.75A
-12V	0.1A
+3.3V	8A
Max. power supported by the backplane: <45W	

The system default power is 90 W. **The maximum total power of the backplane to support expansion cards is 45 W.** The power of the selected expansion cards can not exceed the max. power (45 W), otherwise, the system may be unstable.

Backplane	Slot	TANK-800	TANK-820
		Signal	Signal
HPE-3S6 (2P1E)	PCI	PCI	PCI
	PCIe x16	PCIe x4	PCIe x8
HPE-3S7 (1P2E)	PCI	PCI	PCI
	PCIe x4	PCIe x1	PCIe x1
	PCIe x16	PCIe x2	PCIe x8

Rich I/O Function

- **Four USB Ports**
  Four USB ports can completely satisfy other USB devices or access requirements.
- **Dual GbE Ports**
  Dual GbE ports offer a diverse range of network communication options, helping users easily create an integrated industrial application that requires Ethernet protocols.
- **Serial Ports**
  The serial ports help millions of serial devices connect to the network for industrial applications. Our RS-232/422/485 serial ports provide powerful communication performance for all industrial device connectivity.
- **8-bit Digital I/O, 4-bit input/4-bit output**
  The DIO channels are quite useful for remote controlling, such as device power on/off, LEDs on/off, counter and cash drawer control.

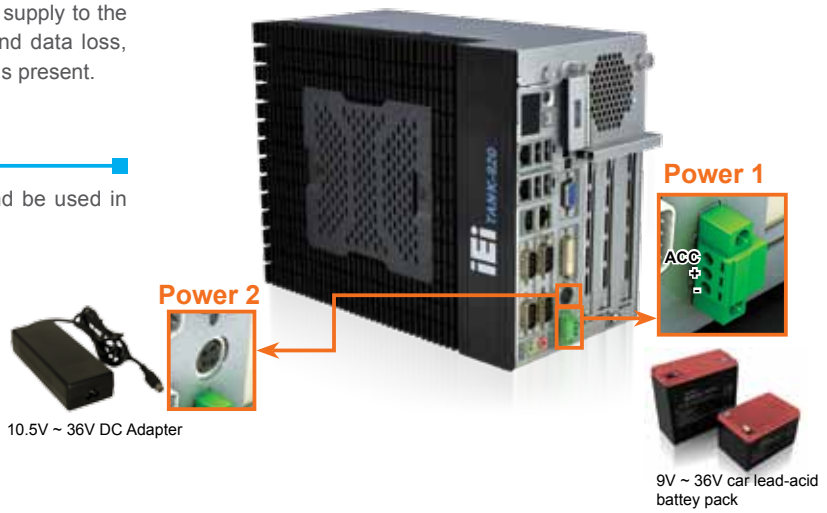


Redundant Dual DC Power Input

The TANK-800-D525/ TANK-820-H61 adopts redundant dual DC power input design, which ensures uninterrupted power supply to the system and eliminates the risk of sudden shutdown and data loss, even if one power is unavailable or low voltage capacity is present.

Compact

The compact solution can sustain strong vibrations and be used in any industrial environments.

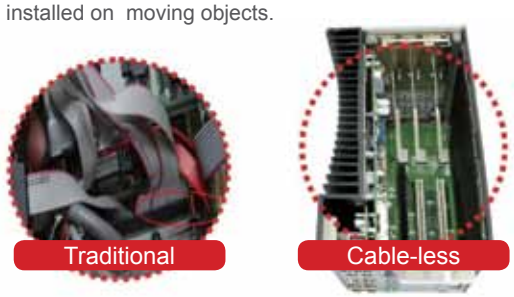


Anti-Vibration and Anti-Shock Design

With the rugged design, the TANK-800/820 series is reliable in industrial environments to resist strong vibrations and can be used as a core computer requiring to be installed on moving objects.

Cable-less

The cable-less concept offers a strong hardware design and promises a reliable combination of embedded components. This design helps ensuring stable system operation and robust hardware design. With all the components firmly attached, the TANK-800/820 series is ideal to be installed on moving objects.

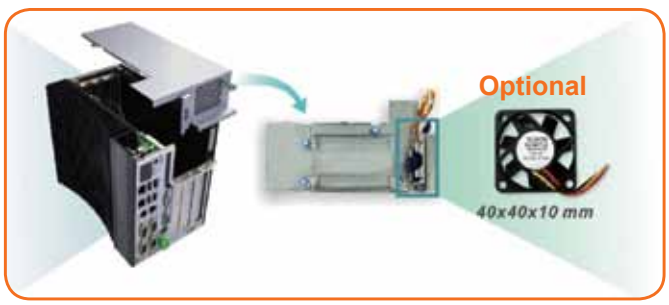


Wide Range DC Power Input

The TANK-800/820 series accepts wide range DC power input, allowing it to be powered anywhere, no matter if a 12V, 24V DC source or a 19V power adapter is available.

Ingenious Fan Space Design

The TANK-800/820 series reserves an easy-to-install, hot-pluggable fan module space, ensuring the PCI/PCIe expansion cards with high power consumption to operate under high temperature environment.



Fanless

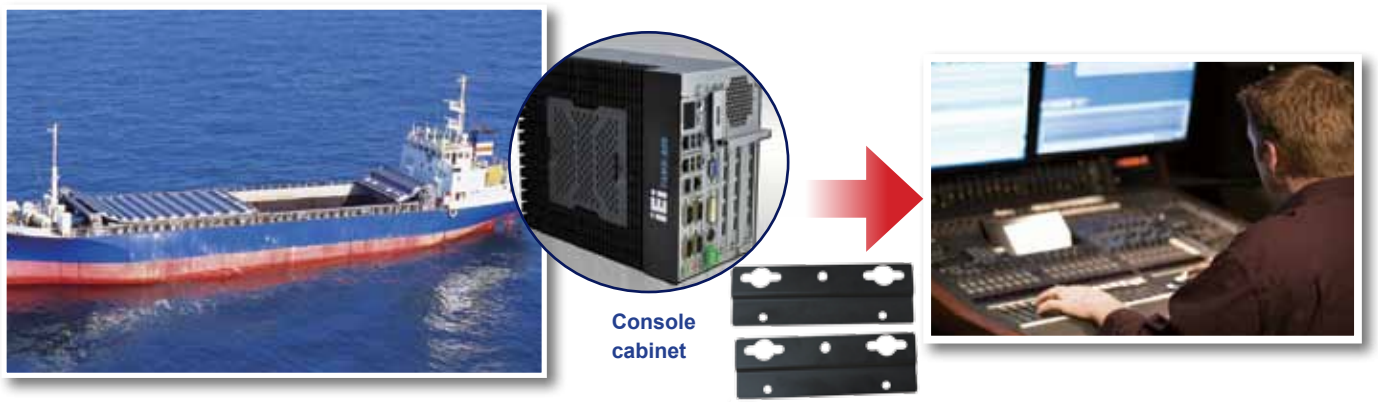
The TANK-800 series provides the best components that generate less heat, but maintain high system performance. With the fanless design, the TANK-800-D525 reduces system failure caused by fans and extends the lifetime of the device.

Wide Range Temperature

The TANK-800/820 series is designed to withstand wide range of temperatures. With this design, the TANK-800/820 series can even be installed in a high-temperature roadside cabinet.

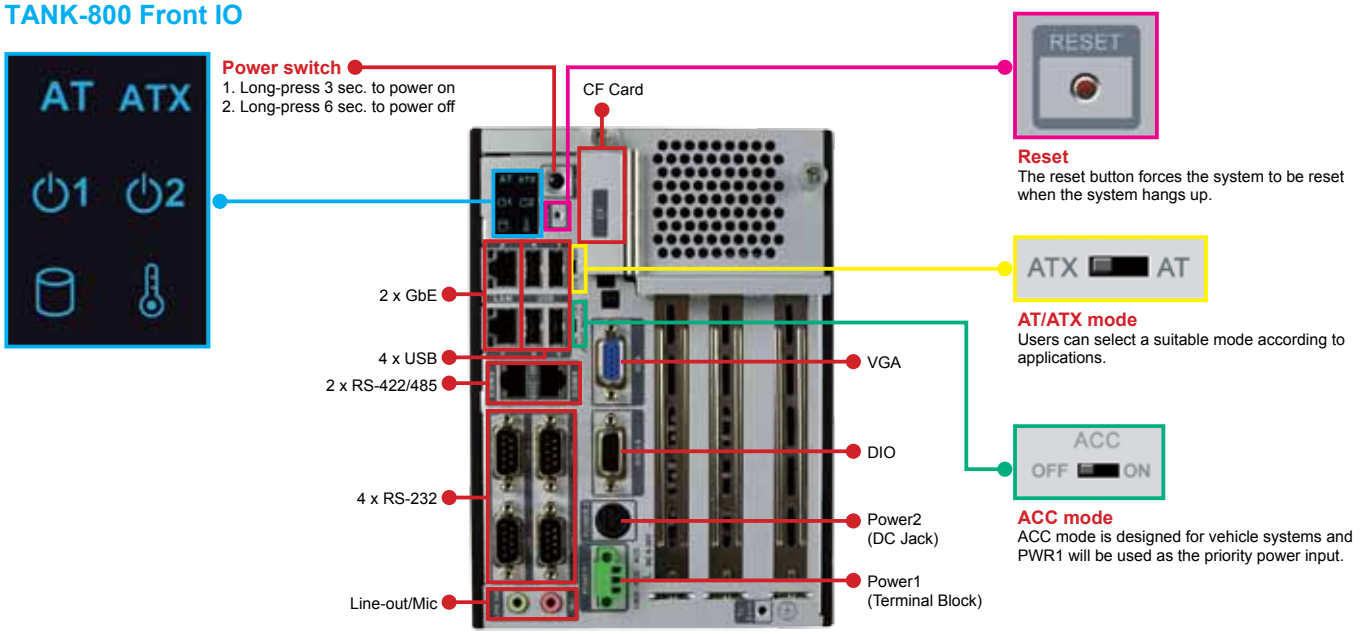
Mounting Method

Mount the embedded system onto a wall or other surfaces using the two mounting brackets.

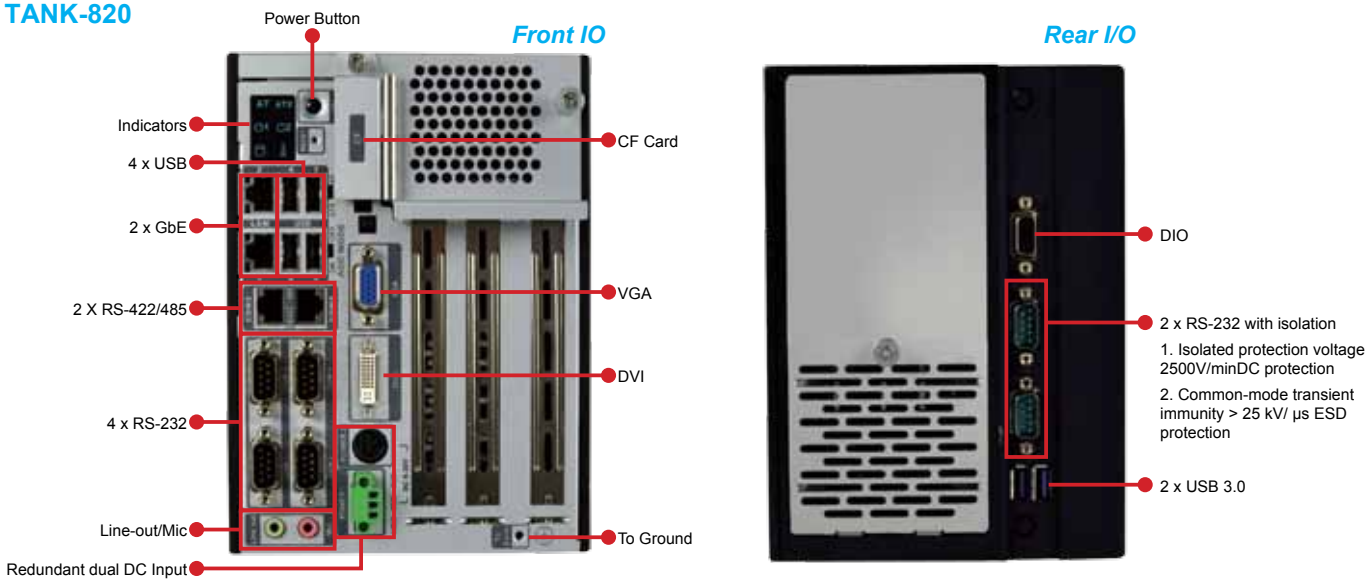


Fully Integrated I/O

TANK-800 Front IO



TANK-820



Specifications

Model Name		TANK-820-H61 New	TANK-800-D525
Chassis	Color	Black C + Silver	Black C + Silver
	Dimensions (W x D x H)	133 x 269 x 208 mm	136 x 219 x 188 mm
	System Fan	60 x 60 mm	Fanless
	Chassis Construction	Extruded Aluminum Alloy	Extruded Aluminum Alloy
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W	Intel® D525 1.8 GHz dual-core processor
	Chipset	Intel® H61	Intel® ICH8M
	System Memory	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)	On-board DDR3 1GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 3GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
	CompactFlash®	1 x CF Type II	1 x CF Type II
I/O interfaces	USB 3.0	2	N/A
	USB 2.0	4	4
	Ethernet	2 x RJ-45 Realtek 8111E GbE LAN support ASF 2.0	2 x RJ-45 Realtek 8111E GbE LAN support ASF 2.0
	RS-232	4 x DB-9 2 x DB-9 w/isolation	4 x DB-9
	RS-422/485	2 x RJ-45	2 x RJ-45
	Digital I/O	8-bit Digital I/O, 4-bit input / 4-bit output	8-bit Digital I/O, 4-bit input / 4-bit output
	Display	1 x VGA, 1 x DVI-I	1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz DVI-I: Up to 1920 x 1080 @ 60Hz	VGA: Up to 2048 x 1536 @ 75Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
Expansions	PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI	2P1E: 2 x PCI, 1P2E: 1 x PCI
	PCIe	2P1E: One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	2P1E: One PCIe x4 (physical PCIe x 16slot) 1P2E: One PCIe x1 (physical x 4slot), One PCIe x2 (physical x 16slot)
Power	Power Input	Redundant dual DC input Terminal Block: 9~24V DC Jack: 9~24V	Redundant dual DC input Terminal Block: 9V (+/-0.3V) ~ 36V DC Jack: 10.5V (+/-0.3V) ~ 36V
	Power Consumption	19V@3.5A (Intel® Core™ i3-2100 with 6GB DDR3 memory, w/o add-on card)	19V@1.73A (Intel® Atom™ D525 with 1GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	4.2 Kg / 6.3 Kg	2.6Kg / 4.1Kg
	Safety & EMC	CE / FCC	CE / FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® WES7E, Microsoft® Windows® XP Embedded

Ordering Information

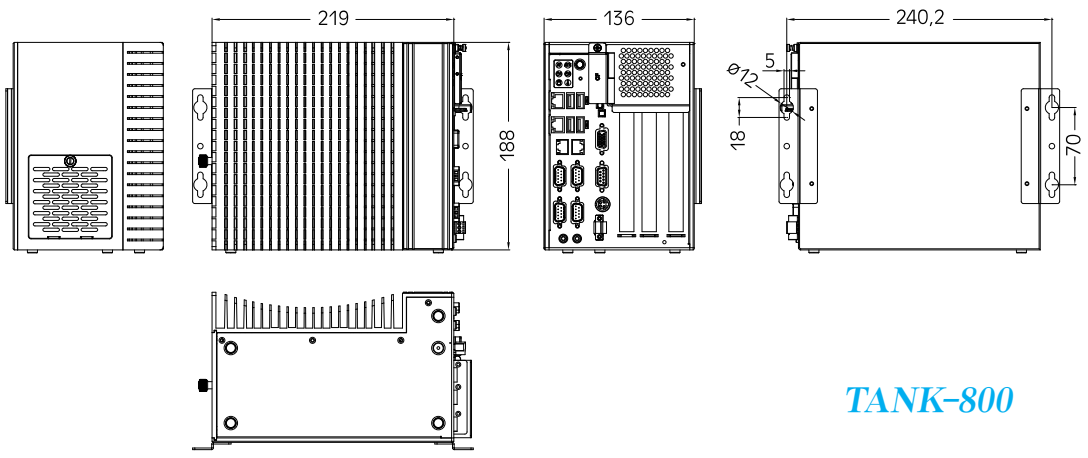
TANK-800 series

Part No.		Description
TANK-800-D525/1GB/2P1E-R10		Extended temperature fanless embedded system with one PCIe x4 and two PCI expansion, Intel® Atom™ D525 1.8GHz dual core processor, dual 9V-36V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS
TANK-800-D525/1GB/1P2E-R10		Extended temperature fanless embedded system with one PCIe x1, one PCIe x2 and one PCI expansions, Intel® Atom™ D525 1.8GHz dual core processor, dual 9V-36V DC-IN, on-board 1GB DDR3 memory, -20°C ~ 70°C, RoHS
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333MHz 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333MHz 4GB

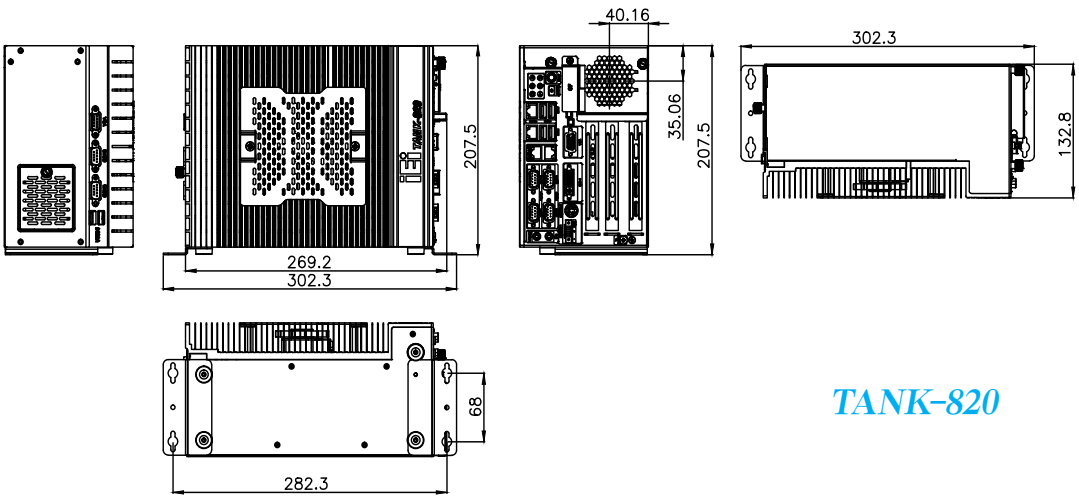
TANK-820 series

Part No.		Description
TANK-820-H61-i5/2G/2P1E-R10		Extend temperature embedded system with One PCIe x8 and two PCI expansion, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
TANK-820-H61-i5/2G/1P2E-R10		Extend temperature embedded system with One PCIe x1 and one PCIe x8 and one PCI expansion, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
TANK-820-H61-i3/2G/2P1E-R10		Extend temperature embedded system with One PCIe x8 and two PCI expansion, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
TANK-820-H61-i3/2G/1P2E-R10		Extend temperature embedded system with One PCIe x1 and one PCIe x8 and one PCI expansion, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
TANK-820-H61-P/2G/2P1E-R10		Extend temperature embedded system with One PCIe x8 and two PCI expansion, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
TANK-820-H61-P/2G/1P2E-R10		Extend temperature embedded system with One PCIe x 1 and one PCIe x8 and one PCI expansion, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, Dual 9-24V DC-IN, 2GB DDR3 Memory on-board, -20°C~60°C, R10
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333 MHz 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333 MHz 4GB

Dimensions (Unit: mm)



TANK-800



TANK-820

Options

Item	Part No.	Description
OS: Linux (2GB CF Card)	TANKCF-800-D525-LNX-2G-R10	OS Image with Linux for TANK-800 D525, Debian operating system, Kernel version 2.6.26, 2GB CompactFlash® card, RoHS
	TANKCF-820-H61-LNX-2G-R10	OS Image with Linux for TANK-820 H61, Debian operating system, Kernel version 2.6.26, 2GB CompactFlash® card, RoHS
OS: Win CE 6.0 (128MB CF Card)	TANKCF-800-D525-CE060-128M-R10	OS Image with WINCE 6.0, for TANK-800 D525 Series, 128MB CompactFlash® card, RoHS
OS: Win XPE (4GB CF Card)	TANKCF-800-D525-XPE-4G-R10	OS Image with XPE, for TANK-800 D525 Series, 4GB CompactFlash® card, RoHS
	TANKCF-820-H61-XPE-4G-R10	OS Image with XPE, for TANK-820 H61 Series, 4GB CompactFlash® card, RoHS
OS: Win 7 Embedded (4GB CF Card)	TANKCF-800-D525-WES7E-4G-R10	OS Image with Windows Embedded Standard 7 E, for TANK-800 D525 Series, 4GB CompactFlash® card, RoHS
	TANKCF-820-H61-WES7E-4G-R10	OS Image with Windows Embedded Standard 7 E, for TANK-820 H61 Series, 4GB CompactFlash® card, RoHS

Packing List

Item	Part No.	Quantity	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power Adapter	63040-010090-020-RSS	1	FSP090-D2BA1, 90 ~ 264VAC input, 90W, 19VDC output (for TANK-800)
	63000-FSP120AAB-RS	1	FSP120-AAB, 90 ~ 264V input, 120W, 19VDC output (for TANK-820)
Power Cord	32702-000401-100-RS	1	1500 mm, European Standard
Mounting Bracket	41020-0308C2-00-RS	2	Wall mount bracket, Mount bracket, NCT processing formation, TANK-800, RoHS
	41020-0366E4-00-RS	2	Wall mount bracket, Mount bracket, NCT processing formation, TANK-820 RoHS
Mounting Bracket Screws	44033-040062-RS	4	
HDD Screw	44043-030051-RS	4	M030*05 for securing HDD
Rubber Foot Pad Screws	44005-030061-RS	8	M4*6 for securing rubber foot pads (for TANK-800)
	44033-040061-RS	4	M4*6 for securing rubber foot pads (for TANK-820)
RJ-45 to DB-9 COM Port Cable	32005-000200-200-RS	2	Round cable, RS-232/422/485, RS-232 cable, 2, 300mm, 26AWG, (A)D-SUB 9P male, (B)RJ-45 8P8C+SHELL, RoHS
Pluggable DC-in Terminal Block	33502-000007-RS	1	3-pin terminal block
Foot Pads	46007-001500-RS	4	BOTTOM PAD, NF-002, 11.5D*8.7D*7.4H, black rubber, RoHS
FAN screws	44003-030151-RS	4	For TANK-820

TANK-700-QM67
TANK-720-Q67

- Intel® 2nd Gen Core™ Mobile Processor
- Intel® 2nd Gen Core™ Desktop Processor

High Performance Fanless Embedded System with 2nd Generation Intel® Core™ i7/i5/i3 Processor

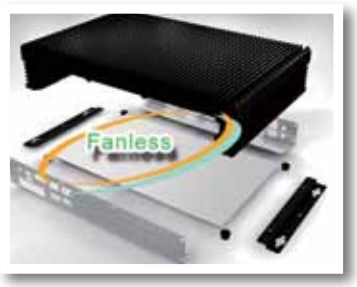
Combo Gigabit LAN (SFP Fiber/RJ-45)

Features

- 2nd Gen Intel® Core™ i7/i5/i3 or Celeron® mobile processors for TANK-700
  2nd Gen Intel® Core™ i7/i5/i3 Pentium® and Celeron® desktop processors for TANK-720
- Intel® HD graphics supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0
- On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10GB)
- Dual combo (10/100/1000 BASE-T(X) or 1000 baseSFP slot RJ-45 port) Gigabit LAN ports, supporting Intel® AMT 7.0
- Supports 8-channel audio/video capture and dual display by VGA and HDMI
- Supports two USB 3.0 ports, four USB 2.0 ports, one SATA 6Gb/s port, one CAN-bus port and eight COM ports (four with isolation)
- Dual-band 2.4/5GHz 802.11a/b/g/n 3T3R MIMO Wi-Fi for high speed wireless transmission
- Redundant dual DC power input (9V ~ 36V)
- CAN-bus interface with isolation

Fanless Solution

The TANK-700/720 series focuses on the best components that generate less heat, but maintain high system performance. With the fanless design, the TANK-700/720 series reduces system failure caused by fans and extends the lifetime of the device.



Intel® Virtualization Technology

The Intel® Virtualization Technology (Intel® VT) allows multiple, independent operating systems to run simultaneously on a single system. This entire "package" of virtual hardware - CPU, memory, NIC, OS and applications - is turned into a single software file that can be utilized as easily as using file copy and paste. The Intel® VT brings an entirely new level of efficiency and flexibility to IT environments.

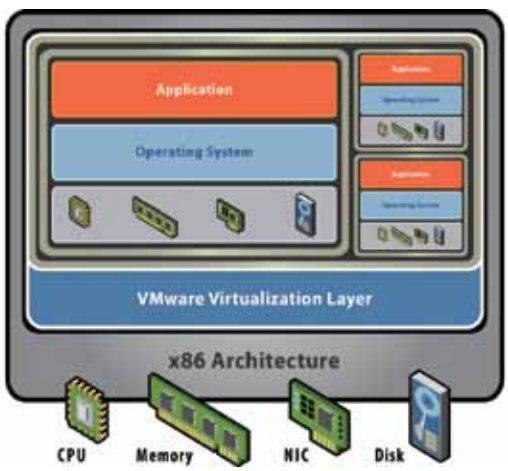
Auto Distribution of Resources
- Dynamic Balancing
- Continuous Optimization

+

Various Applications
- Automated
- Cross Applications

+

Dynamic Adjustment of Resources
- Non-disruptive Scaling
- Flexible and Reconfigurable



High Performance

Performance Leadership

- **Desktop** Intel® Core™ i7/i5/i3 + Q67
- **Mobile** Intel® Core™ i7/i5/i3 + QM67

Graphics and Media

- Integrated 3D graphics performance
- Enhanced graphics engine
- Enhanced media encode/decode
- New AVX instruction set

Advanced Technologies and I/O

- USB data lock
- PCI Express Gen2 speed

Scalability & Power Efficiency

- Less power consumption for improved thermal management

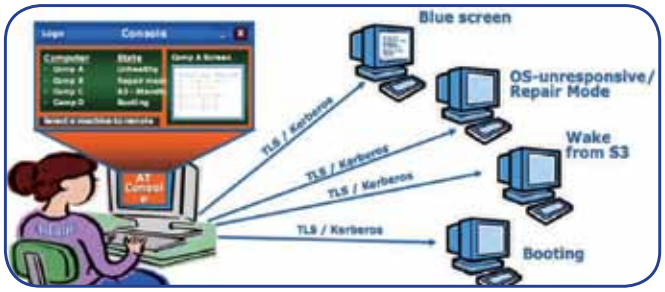
Fast Network Communication

Dual Combo (SFP Fiber/RJ-45) Gigabit LAN

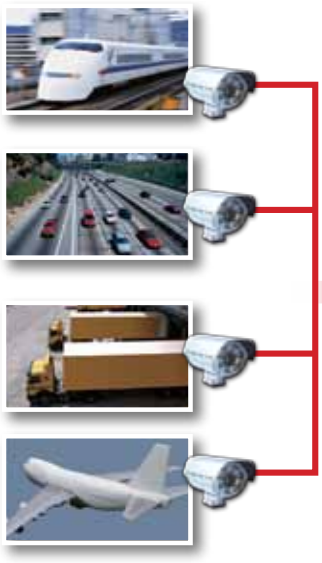
The TANK-700/720 series adopts dual combo (SFP Fiber/RJ-45) Gigabit LAN designed for long-distance networking. It is used in long distance network environments where an Ethernet cable would be unable to provide adequate coverage.

Intel® 82579 PHY with Intel® AMT 7.0 Supported

With the Intel® Core™ i7/i5/i3 hardware architecture, Intel® 82579 PHY Gigabit chipset and Intel® Active Management Technology 7.0 (AMT 7.0), IEI has developed the iEZman program, which allows users to remotely control devices and perform administrative tasks such as wake-on LAN, access, diagnostics and power on/off.



8-Channel Audio/Video Capture Solution



With an H.264 codec, the TANK-700/720 series is capable of compressing and decompressing Full HD (1920x1080) video in real-time without increasing CPU loadings. By supporting real-time recording, previewing, and HD video transmission through surveillance devices, the TANK-700/720 series is suitable as an intelligent monitoring system and transportation intelligent scheduling system solution.

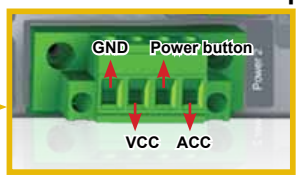
2 x 4-channel audio/video capture (system model name: IVCS-7008)

Besides audio/video capture cards, the TANK-700/720 series can support other PCIe Mini cards by demand, such as 3G and GPS modules.

Redundant Dual DC Power Input

The TANK-700/720 series adopts redundant dual DC power input design, which ensures an uninterrupted power supply to the system and eliminates the risk of sudden shutdown and data loss, even if one power is unavailable or low voltage capacity is present.

Power1: 9 ~ 36V DC input



Car lead-acid battery pack

Power2: 10.5 ~ 36V DC input

Adapter

Isolation Protection

4 COM Ports with Isolation

COM with isolation

1. Isolated protection voltage: 2500V/min DC protection
2. Common-mode transient immunity >25 kV/μs ESD protection

2 x RS-232

2 x RS-422/485

CAN-bus Interface with Isolation

Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to communicate or detect errors with each other within a vehicle, industrial automation and medical equipment. This drastically reduces the chance of data loss and ensures system reliability and is suitable for intelligent networking I/O devices such as sensors or actuators of machines or plants.

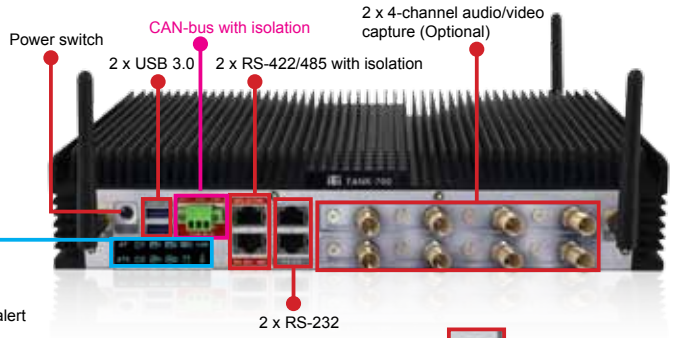
CAN-bus with isolation

1. Isolated protection voltage 2500V/min DC protection
2. Typical transient immunity 50 kV/ms ESD protection

Fully Integrated I/O

Power switch and LED

1. Long-press 3 sec. to power on
2. Long-press 6 sec. to power off

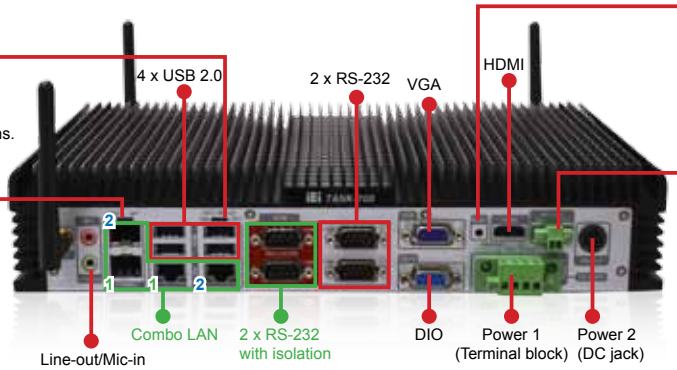


ACC on/off

ACC on mode is designed for vehicle applications. Use the ACC signal to control power on/off.

AT/ATX mode

Users can select a suitable mode according to the application.



Reset

The reset button forces the system to be reset when system hangs up.

Remote control

Users can power on/off the system by inputting low or high voltage into the terminal block.

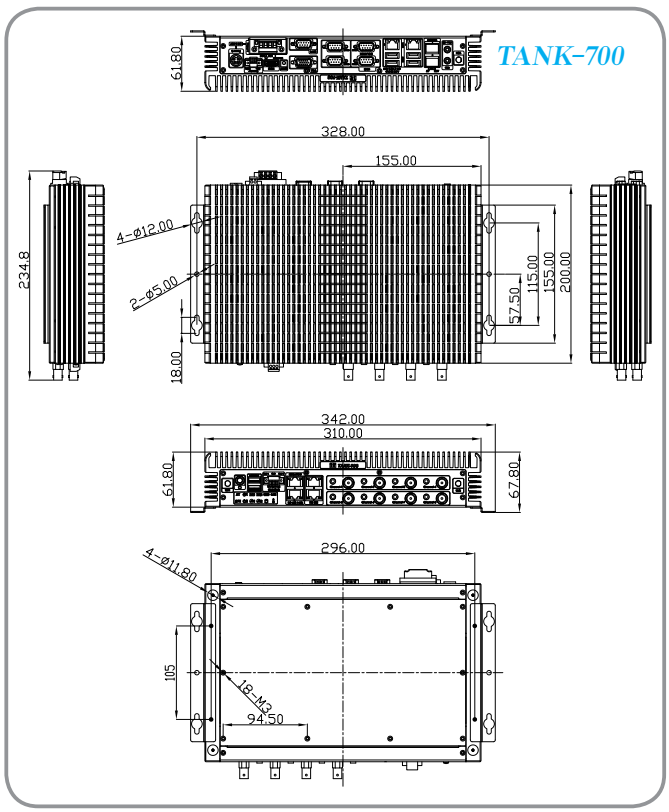
High (2V ~ 5V): Power off

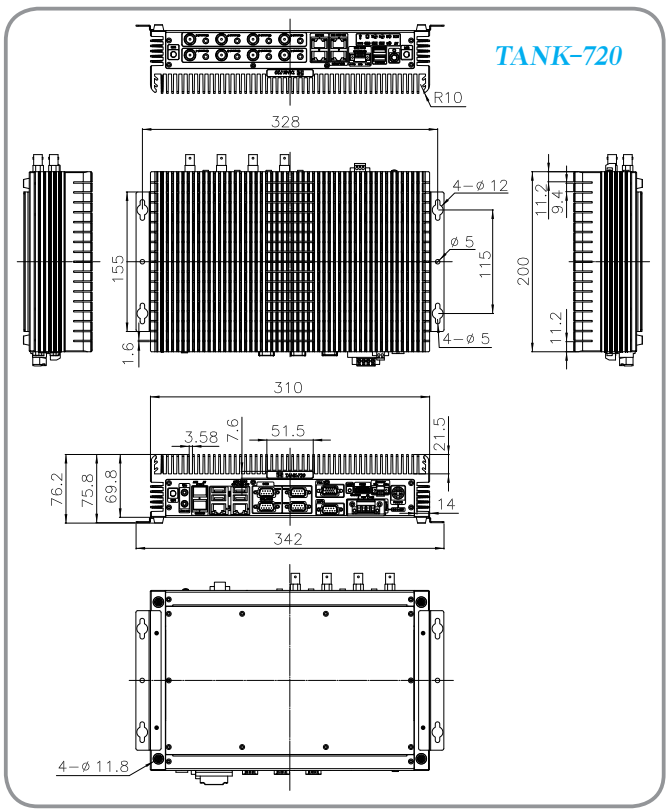
Low (< 0.4V): Power on

Specifications

Model Name		TANK-700-QM67	TANK-720-Q67
Chassis	Color	Black C + Sliver C	Blue C + Sliver C
	Dimensions (WxDxH)	310 x 200 x 62 mm	310 x 200 x 70 mm
	System Fan	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy, Heavy duty steel sheet	Extruded aluminum alloy, Heavy duty steel sheet
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxE, dual-core (above 2.5GHz), 35W -Core™ i3-2xxE, dual-core (above 2.2GHz), 35W -Celeron® B8xx, dual-core (above 1.6GHz), 35W	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W
	Chipset	Intel® QM67	Intel® Q67
	System Memory	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)	
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
I/O interfaces	USB 3.0	2	2
	USB 2.0	4	4
	Ethernet	2 x Combo (SFP Fiber / RJ-45) LAN1: Intel® 82579 with Intel® AMT 7.0 supported, LAN2: Intel® 82583V Ethernet	
	RS-232	4 x DB-9, 2 x RJ-45 w/isolation	4 x DB-9, 2 x RJ-45 w/isolation
	RS-422/485	2 x RJ-45 with isolation	2 x RJ-45 with isolation
	Digital I/O	8-bit Digital I/O, 4-bit input / 4-bit output	8-bit Digital I/O, 4-bit input / 4-bit output
	CAN-bus	1 x Phoenix terminal block	1 x Phoenix terminal block
	Display	1 x VGA, 1 X HDMI	1 x VGA, 1 X HDMI
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz, HDMI: Up to 1920 x 1200 @ 60Hz	
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Other	Optional 4-channel audio/video input PCIe Mini card	Optional 4-channel audio/video input PCIe Mini card
	Wireless	1 x 802.11a/b/g/n (optional)	1 x 802.11a/b/g/n (optional)
Expansions	PCIe Mini	3 x Full Size	3 x Full Size
Power	Power Input	Redundant dual DC input Terminal Block: 9V (+/-0.3V) ~ 36V, DC Jack: 10.5V (+/-0.3V)~36V	Redundant dual DC input Terminal Block: 9V (+/-0.3V) ~ 36V, DC Jack: 10.5V (+/-0.3V)~36V
	Power Consumption	19V@3.3A (Intel® Core™ i5-2540M with 4GB DDR3 Memory)	19V@3.1A (Intel® Core™ i3-2100T with 4GB DDR3 Memory)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 50°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	3.8Kg/6.5Kg	4.2Kg/6.9Kg
	Safety & EMC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded	

Dimensions (Unit: mm)





Ordering Information

TANK-700 series

Part No.		Description
TANK-700-QM67-i5/2G-R10		Fanless embedded system, Core™ i5 Dual Core 2xxE CPU (Above 2.5GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
TANK-700-QM67W-i5/2G-R10		Fanless embedded system, Core™ i5 Dual Core 2xxE CPU (Above 2.5GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
TANK-700-QM67-i3/2G-R10		Fanless embedded system, Core™ i3 Dual Core 2xxE CPU (Above 2.2GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
TANK-700-QM67W-i3/2G-R10		Fanless embedded system, Core™ i3 Dual Core 2xxE CPU (Above 2.2GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
TANK-700-QM67-C/2G-R10		Fanless embedded system, Celeron® Dual Core B8xx CPU (Above 1.6GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
TANK-700-QM67W-C/2G-R10		Fanless embedded system, Celeron® Dual Core B8xx CPU (Above 1.6GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~70°C, R10
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333MHz 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333MHz 4GB

TANK-720 series

Part No.		Description
TANK-720-Q67-i5/2G-R10		Fanless embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHs
TANK-720-Q67W-i5/2G-R10		Fanless embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11a/b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHS
TANK-720-Q67-i3/2G-R10		Fanless embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHs
TANK-720-Q67W-i3/2G-R10		Fanless embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, 2G DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11a/b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHS
TANK-720-Q67-P/2G-R10		Fanless embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, 2GB DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHs
TANK-720-Q67W-P/2G-R10		Fanless embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, 2G DDR3 on-board memory, VGA/HDMI, USB 3.0, SATA 3.0, SFP Fiber, 3T3R 802.11a/b/g/n wireless, Isolated CAN, Audio, 9-36V DC input, -20~50°C, R10, RoHS
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333MHz 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333MHz 4GB

Options

Options	Part No.	Description
Gigabit Ethernet SFP Module	SFP1G-SX/-I	1Gbps SFP optical transceiver, multi-mode/550m, 850nm (0°C ~ 70°C)/industrial grade (-20°C ~ 85°C)
	SFP1G-MLX/-I	1Gbps SFP optical transceiver, multi-mode/2Km, 1310nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
	SFP1G-LX10/-I	1Gbps SFP optical transceiver, single-mode/10Km, 1310nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
	SFP1G-XD70/-I	1Gbps SFP optical transceiver, single-mode/50Km, 1550nm (0°C ~ 70°C)/industrial grade (-40°C ~ 85°C)
Fiber Cord	FPC-LCLC-MM3M	Optical connector LC/LC, multi-mode, diameter 62.5/125 µm, length 3m
Fiber Cord	FPC-LCLC-SS3M	Optical connector LC/LC, single-mode, diameter 9/125 µm, length 3m
OS: Win CE 6.0 (CD-ROM)	TANK-700-QM67-CE060-R10	OS Image with WINCE 6.0, for TANK-700 QM67 Series, with CD-ROM, RoHS
	TANK-720-Q67-CE060-R10	OS Image with WINCE 6.0, for TANK-720 Q67 Series, with CDROM, R10
OS: Win XPE (CD-ROM)	TANK-700-QM67-XPE-R10	OS Image with XPE, for TANK-700 QM67 Series, with CD-ROM, RoHS
	TANK-720-Q67-XPE-R10	OS Image with XPE, for TANK-720 Q67 Series, with DVD-ROM, R10
OS: Linux (CD-ROM)	TANK-700-QM67-LNX-R10*	OS Image with Linux for TANK-700 QM67, Debian operating system, Kernel version 2.6.26, with CD-ROM, RoHS
	TANK-720-Q67-LNX-R10*	OS Image with Linux for TANK-720 Q67, Debian operation system, Kernel version 2.6.26, with CD-ROM, R10
OS: Win 7 Embedded (CD-ROM)	TANK-700-QM67-WES7E-R10	OS Image with Windows Embedded Standard 7 E, for TANK-700 QM67 Series, with CD-ROM, RoHS
	TANK-720-Q67-WES7E-R10	OS Image with Windows Embedded Standard 7 E, for TANK-720 Q67 Series, with DVD-ROM, R10

* it doesn't include video/audio capture card's driver

Packing List

Item	Part No.	Quantity	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power Adapter	63040-010090-020-RS	1	FSP090-D2BA1, 90 ~ 264VAC input, 90W, 19VDC output, Din 4-pin
Power Cord	32702-000401-100-RS	1	1500 mm, European Standard
RJ-45 to DB-9 COM Port Cable	32005-000200-200-RS	4	Round cable, RS-232/422/485, RS-232 cable, 2, 300mm, 26AWG, (A)D-SUB 9P male, (B)RJ-45 8P8C+SHELL, RoHS
Power Cord Convert Cable	32702-000300-100-RS	1	Convert normal type cord to triangle type cord cable
Chassis Screw	44013-030041-RS	8	M3*4 chassis screws for backup
Mounting Bracket	41020-0163J4-00-RS	2	
Mounting Bracket Screws	44003-030062-RS	8	M3*6 mounting bracket screws
Wi-Fi Antenna (for Wi-Fi module only)	32505-000900-100-RS	3	External antenna
Pluggable DC-in Terminal Block	33502-000055-RS	1	4-pin
Pluggable CAN-bus Terminal Block	33502-000007-RS	1	3-pin
Pluggable Remote Control Terminal Block	33101-000422-RS	1	2-pin

TANK-GM45A

Extended Temperature Fanless Embedded System with Intel® Core™ 2 Duo Processor

Features

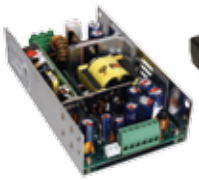
- Socket P Intel® 45nm Mobile Core™2 Duo Processor
- Extended Temperature Fanless design supports -20ºC~70ºC
- High Performance MPEG-2 Decoding, WMV9 (VC-1) and H.264 (AVC)
- Built-in DDR2 SO-DIMM 2GB memory
- Supports 2 x COM, 4 x USB 2.0, 2 x Intel® GbE LAN
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Extended Temperature System with Multi-Function

The TANK-GM45A supports an extended temperature range from -20ºC up to 70ºC with one industrial 2.5" SATA Flash Disk. IEI IFD 2.5" SSD supports SATA SLC solutions and features anti-vibration, low power consumption, high performance and perfect reliability. SSD not only performs much better IOPS than HDD, it also can be operated anytime without mobile components like a motor, bearing or rotating head. In addition, SSD can perform in any harsh environment.

Single 12V Power Input

4-pin Power Jack with Lock for 12V DC power input



12V DC power supply

Power adapter

Power cable

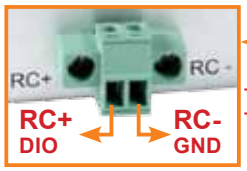
COM1: Isolated RS-232
COM3: Isolated RS-422
(optional for RS-485)

COM with Isolation

1. On-board +15KV ESD protection
2. Isolated 1200VDC protection

An integrated circuit (IC) connected to external port is susceptible to damaging electrostatic discharge (ESD) pulses from the operating environment and peripherals.

Additional protection can violate stringent signaling requirements, leaving design engineers with the need to balance performance and reliability.



Turn off the system: more than **1 V** input
Turn on the system: less than **0.5 V** input

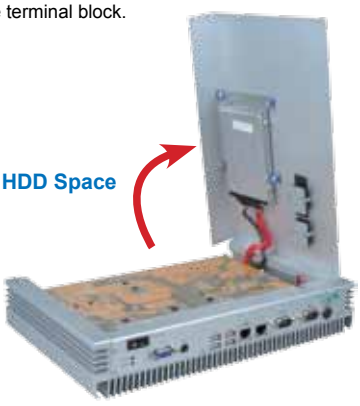
DIO Signal

The GPIO terminal block connects to a remote control device. Users can control the system power on/off by inputting high or low voltage into the terminal block.

AT/ATX Mode by external switch

The TANK-GM45A supports AT and ATX power modes. The setting can be made through the AT/ATX switch on the external peripheral interface panel.

One 2.5" SATA HDD Space



High Performance Intel® GbE

• Intel® 82574L

The 82574 provides one PCIe lane operating at 2.5 GHz with sufficient bandwidth to support 1000 Mb/s transfer rate. It supports 9018-byte jumbo packets, 40 KB of on-chip buffering mitigates instantaneous receive bandwidth demands and eliminates transmit under–runs by buffering the entire outgoing packet prior to transmission.

• Intel® WG82567LM

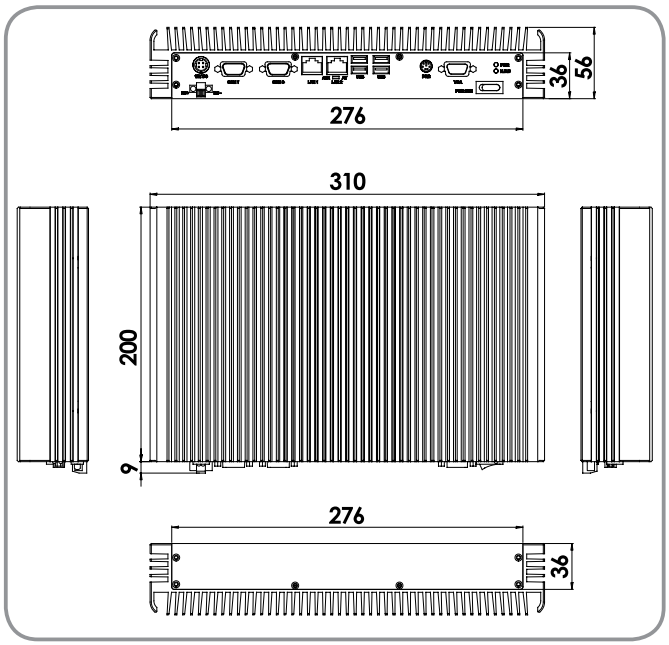
The 82567 is a single port GbE Physical Layer Transceiver (PHY) that connects to its Media Access Controller (MAC) through a dedicated interconnect and supports operation at data rate of 10/100/1000 Mb/s. Supports up to 9 kB jumbo frames (full duplex).

Digital Security Surveillance

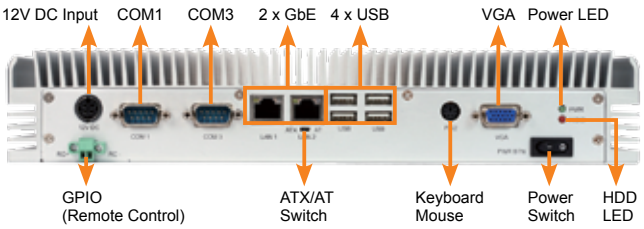
Specifications

Model Name		TANK-GM45A
Chassis	Color	Sliver
	Dimensions (WxDxH)	310 x 200 x 55 mm
	System Fan	Fanless
	Chassis Construction	Aluminum alloy with heavy duty metal
Motherboard	CPU	Intel® Core™ Duo P8400 2.26GHz Intel® Celeron® M 575 2.0GHz
	Chipset	Intel® GM45 + ICH9M
	System Memory	Pre-installed 2GB DDR2 SO-DIMM (System Max 2GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
I/O interfaces	PS2 (KB/MS)	1
	USB 2.0	4
	Ethernet	2 x RJ-45 LAN1: Intel® 82574L Ethernet Controller LAN2: Intel® WG82567LM Ethernet PHY
	RS-232	1 x DB-9 w/isolation
	RS-232/422/485	1 x DB-9 Default RS-422 w/isolation
	Digital I/O	DIO signal for remote on/off control
	Display	1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz
Power	Power Input	Terminal / DC Jack: 12V DC
	Power Consumption	12V@3.85A (Intel® Core™ 2 Duo P8600 with DDR2 2GB)
Reliability	Mounting	Wall mount
	Operating Temperature	-20°C ~ 70°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-1
	Weight (Net/Gross)	3.5kg/4.2kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded

Dimensions (Unit: mm)



Integrated I/O



Packing List

1 x Power Cable (Terminal Block DC in Cable) (Part No.: 32002-002000-100-RS)	
1 x Screw Set for Wall Mount Kit	
2 x Wall Mount Backets	1 x QIG
1 x One Key Recovery CD	1 x CD

Power Cable

Wall Mount Bracket

Ordering Information

Part No.	Description
TANK-GM45A-R10/P8400/2GB	Extend temperature fanless embedded system with Intel® Core™ 2 Duo P8400 2.26 GHz 3MB L2 cache and GM45 chipset, with 2GB DDR2 memory, 12VDC, -20°C~70°C, RoHS
TANK-GM45A-R10/CM575/2GB	Extended temperture fanless embedded system with Intel® Celeron® M 575 2.0 GHz 1MB L2 cache and GM45 chipset, with 2GB DDR2 memory, 12VDC, -20°C~70°C, RoHS
63000-FSP060DBAB1554-RS	Power adapter, FSP060-DBAB1554, input VAC: 90~264V, output: 12V/60W with ERP and PSE certificates
63000-FSP096AHB-RS	Power adapter, FSP096-AHB, input VAC: 90~264V, output: 12V/96W with ERP and PSE certificates
32000-000002-RS	17.5cm European Standard Power Cord
32000-000025-RS	18.3cm American Standard Power Cord
32006-00300-100-RS	PS2 KB/MS Y Cable
IFD-2510WT-XXXXX	iFD 2.5" SATA 3.0 2510WT SLC SSD Wide Temp. Grade -40°C~85°C (8GB~128GB)
IFD-2510RW-XXXXX	iFD 2.5" SATA 3.0 2510RW SLC SSD Wide Temp. Grade -40°C~85°C (1GB~32GB)
IFD-2000JW-XXXXX	iFD 2.5" SATA 3.0 2000JW SLC SSD Wide Temp. Grade -40°C~85°C (8GB~128GB)

XXXXX=Capacity

TANK-101B-D525/N455

Fanless Embedded Controller with Dual-Core Intel® Atom™ D525 Processor

Features

- Dual-core Intel® Atom™ D525 processor inside
- Wide range 9~36VDC power input
- Isolation protected COM and CAN communication
- Extended temperature fanless design supports -20°C ~ 70°C (N455)

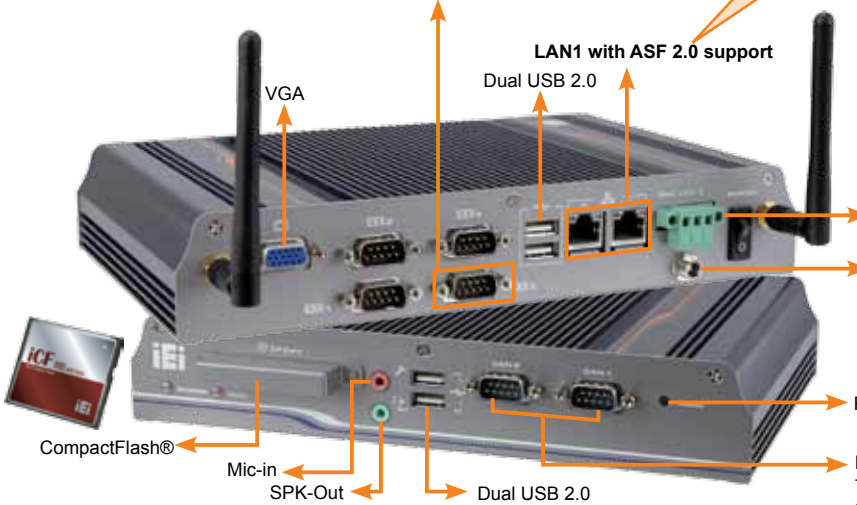
The TANK-101B is designed with all the functions and protections compliant with targeting transport market. It not only provides dual-core computing power delivered by the Intel® Atom™ D525, its onboard memory with CompactFlash®/SATA DOM solid-state storage can withstand severe operating environments on board. With typical voltage at 24VDC, the TANK-101B can take wide range DC input from 9V to 36V as power source. It also has COM port and CANBus with isolation protection for device control, dual Realtek GbE LAN and 802.11b/g/n for high speed communication. The TANK-101B supports all these versatile functions in a compact enclosure in addition to fanless operation.

Isolation Protection

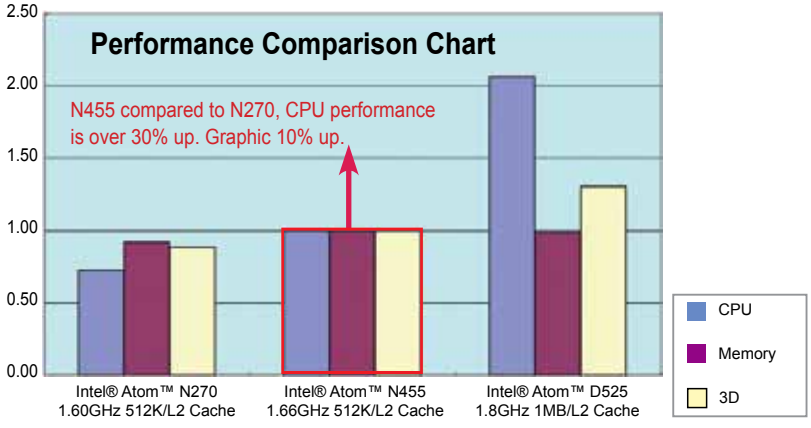
An integrated circuit (IC) connected to external ports is susceptible to damaging electrostatic discharge (ESD) pulses form the operating environment and peripherals. Additional protection can violate stringent signaling requirements, leaving design engineers with the need to balance performance and reliability.

COM3 : RS-232/422/485
Default RS-422 with isolation
1. On-board 15KV ESD Protection
2. Isolated 3000 VDC Protection

Alert Standard Format (ASF 2.0) is also supported to provide system manageability in OS-absent environments. The ASF defines remote control and alerting interface that serve managed PCs in OS-absent states. The ASF capability can minimize on-site IT maintenance, improve system availability, and allow remote control of power management.



Dual-core Intel® Atom™ D525



Isolated CAN :

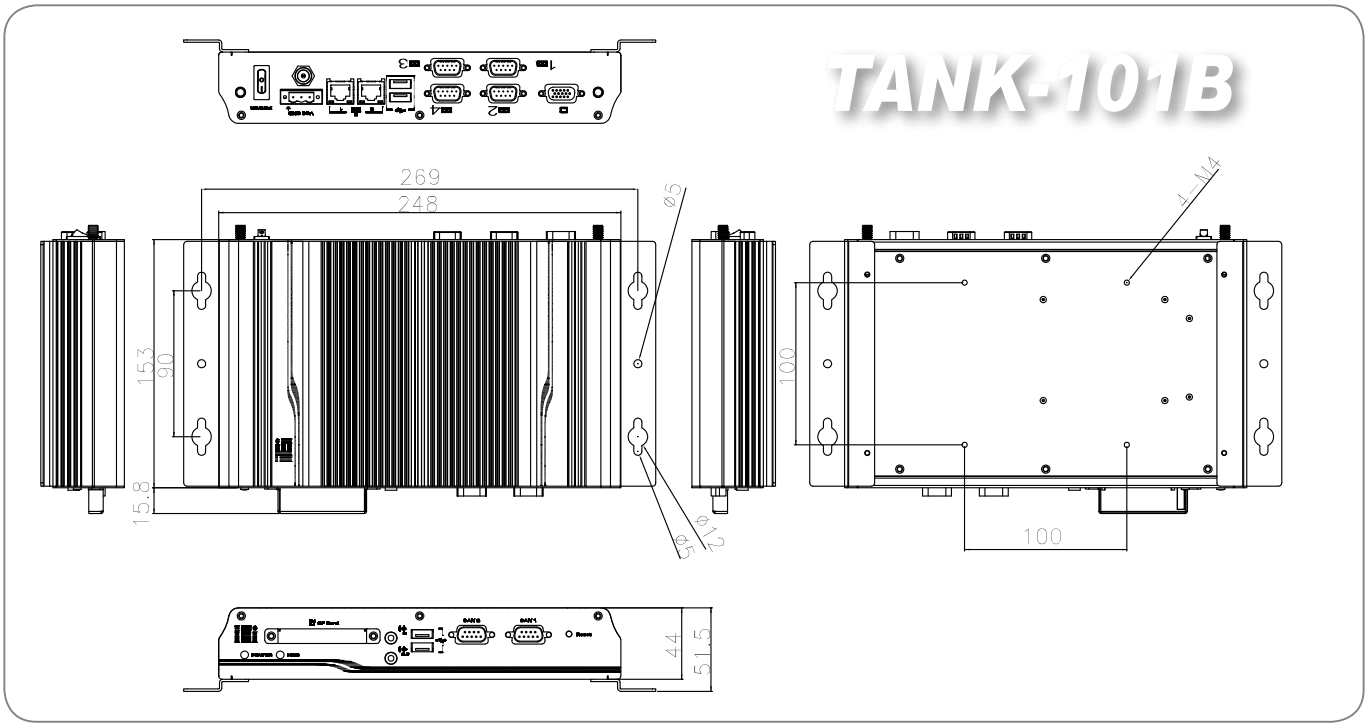
The Control Area Network (CAN) is a serial bus system originally developed by Bosch for use in automobiles, and is now increasingly used in industrial automation.

IEI TANK-101B has built-in on-board CAN controllers. The IEI CAN provides bus arbitration and error detection with an automatic transmission repeat function.

This drastically reduces the chance of data loss, ensures system reliability and is suitable for networking intelligent I/O devices such as sensors or actuator of machines or plants. On-board optical isolators along with additional protection design protect your system and equipment against damage from ground loops and electrostatic discharge (ESD), which increases system reliability in harsh environments.

CAN Controller	Philips SJA1000T
CAN Transceiver	TI ISO1050DUBR
Signal Support	CAN_H, CAN_L
Speed (bps)	1Mbps
Connectors	Two DB-9 Connectors
Isolated Protection	2500Vrms on CAN side

Dimensions (Unit: mm)



Specifications

Model Name		TANK-101B
Chassis	Color	Cool Gray+Blue
	Dimensions (WxDxH)	248 x 138 x 44 mm
	System Fan	Fanless
	Chassis Construction	Aluminum alloy with heavy duty metal
Motherboard	CPU	Intel® Dual Core D525 1.8 GHz Intel® Dual Core N455 1.66 GHz
	Chipset	Intel® ICH8M
	System Memory	On-board DDR3 1GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max : 3GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
	CompactFlash®	1 x CF Type II
System Function	USB 2.0	4
	Ethernet	2 x RJ-45 Realtek 8111E PCIe GbE
	RS-232	3 x DB-9
	RS-422/485	1 x DB-9 Default RS-422 w/isolation
	CAN Bus	2 x DB-9 CAN w/isolation
	Display	1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (reserved for Wi-Fi module)
Power	Power Input	DC Jack: 9~36V DC
	Power Consumption	12@1.85A (Intel® Atom™ D525 with DDR3 1GB)
Reliability	Mounting	Din-rail, wall mount
	Operating Temperature	-20°C ~ 60°C (D525 with air flow CF/SSD), 5% ~ 95%, non-condensing -20°C ~ 70°C (N455 with air flow CF/SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with CompactFlash® / SSD
	Weight (Net/Gross)	2.1 kg/3.9 kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® XP Embedded

Packing List

1 x SATA HDD drive cable (Part No. : 32801-004900-100-RS)	
1 x 60W 12V power adapter (Part No.: 63000-FSP060DBAB1552-RS)	
2 x Wireless antenna (For wireless model only)	
1 x Power cord	1 x One Key Recovery CD
2 x Wall mount brackets	1 x Driver CD
1 x Screw set	1 x QIG

Wall mount Bracket

Ordering Information

Part No.	Description
TANK-101B-R10/D525/1GB	Extended tempeture fanless embedded system with dual-core Intel® Atom™ Processor D525 1.8GHz CPU with two isolated CAN, one isolated serial port, 1GB DDR3 memory onboard, 9~36V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 60°C, RoHS
TANK-101B-R10/N455/1GB	Extended tempeture fanless embedded system with Intel® Atom™ Processor N455 1.66GHz CPU with two isolated CAN, one isolated serial port, 1GB DDR3 memory onboard, 9~36V DC in, Pantone 287C + Cool Gray 2C, -20°C ~ 70°C, RoHS
TANK-101BW-R11/D525/1GB	Fanless embedded system with dual core Intel® Atom™ Processor D525 1.8G CPU with two isolated CAN, One isolated Serial Port, built-in 802.11 b/g/n wireless, 1GB DDR3 memory onboard, 9~36V DC in, -10°C ~ 50°C, R11, RoHS

Embedded OS support

TANKCF-101B-XPE-1GB	Windows® XP Embedded OS image, for TANK-101B, with 1GB CompactFlash® memory card, RoHS

* For other CompactFlash® capacity, please contact IEI for customization options.

Digital Signage Embedded System

Model Name		ECN-780-Q67	ECN-680A-H61	IOPS-H61/Q67	IDS-H61/Q77
Chassis	Color	Black	Black	Black	Black
	Dimensions (WxDxH)	230 x 173 x 60 mm	222 x 163 x 54.5 mm	200 x 171 x 30 mm	267 x 160 x 45 mm
	System Fan	1 x 80 mm	1 x 80 mm	1 x 60 mm	Fanless
	Chassis Construction	SECC	SECC + Plastic	Aluminum Alloy	Aluminum Alloy
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W	H61: Intel® Celeron® Dual Core G530 2.4 GHz, 65W Q67: Intel® Dual Core™ i5-2390T 2.7 GHz, 35W	H61:Intel® Celeron® Dual Core G530T 2.0 GHz, 35W Q77: Intel® i5-3470T 2.9 GHz, 35W
	Chipset	Intel® Q67	Intel® H61	Intel® H61 / Intel® Q67	Intel® H61 / Intel® Q77
	System Memory	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)	1 x 204-pin DDR3 SO-DIMM support up to 1066/1333 MHz Pre-installed 2GB (System Max: 8GB)	1 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 8GB)	2 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 32GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	N/A	1 x 2.5" SATA HDD Bay
	CompactFlash®	N/A	N/A	N/A	N/A
	mSATA	Optional	Optional	32GB	32GB
	SDHC	N/A	N/A	N/A	1 x SDHC card slot
I/O interfaces	PS2 (KB/MS)	N/A	N/A	N/A	N/A
	USB 3.0	2	2	N/A	H61: 0, Q77: 2
	USB 2.0	2	4	2	4
	Ethernet	2 x RJ-45 LAN1: Intel® 82579 PHY Ethernet with Intel® AMT 7.0 support LAN2: Intel® 82583V Ethernet	2 x RJ-45 LAN1: Intel® 82579 PHY LAN2: Intel® 82583V Ethernet	IOPS-H61: 1 x RJ-45 Intel® 82579LM GbE IOPS-Q67: 1 x RJ-45 Intel® 82579LM GbE with Intel® AMT 7.0 support	1 x RJ-45 Intel® 82579LM GbE
	RS-232	2 x DB-9	2 x DB-9, 1 x RJ-45	1 x RJ-45	1 x DB-9
	RS-422/485	1 x DB-9	1 x DB-9	N/A	N/A
	Digital I/O	N/A	N/A	N/A	N/A
	CAN-bus	N/A	N/A	N/A	N/A
	Display	1 x HDMI, 1 x DVI-D, 1 x VGA	1 x HDMI, 1 x DVI-D, 1 x DVI-I	1 x DisplayPort 1.1	H61: 1 x DVI-I, 1 x DisplayPort 1.1 Q77: 1 x DVI-I, 2 x DisplayPort 1.1
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz DVI-D: Up to1920 x 1080 @ 60Hz	HDMI: Up to1920 x 1200 @ 60Hz DVI-D/DVI-I: Up to 1920 x 1080 @ 60Hz	OPS display: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600	DVI-I: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out	1 x Line-out
	Other	N/A	N/A	1 x SDHC card	1 x SDHC card
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
Expansions	PCI	N/A	N/A	N/A	N/A
	PCIe	N/A	N/A	N/A	N/A
	PCIe Mini	2 x Full size (reserved for Wi-Fi and TV-Tunner)	1 x Full size (reserved for Wi-Fi)	1 x Full size (default mSATA 32GB)	1 x Full size (default mSATA 32GB) 1 x Half size
Power	Power Input	100~ 240 AC input	DC Jack: 9~36V	12~19V DC	DC Jack: 12V DC
	Power Consumption	19V@3.5A (Intel® Core™ i7-2600S with 1333MHz 4GB DDR3 memory)	19V@3.6A (Intel® Core™ i7-2600S with 1333MHz 4GB DDR3 memory)	12V@3.83A (Intel® Celeron® G530 with 4G DDR3 memory)	12V@3.41A Intel® Celeron® G530T with 4G DDR3 memory)
Reliability	Mounting	Wall mount	Wall mount	OPS module PC	Wall mount
	Operating Temperature	-20°C ~50°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~60°C with air flow (SSD), 5% ~ 95%, non-condensing	0°C ~45°C with air flow (mSATA), 5% ~ 95%, non-condensing	0°C~45°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis			
	Operation Vibration	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with CompactFlash® / SSD		MIL-STD-810F 514.5C-2 with mSATA	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with mSATA
	Weight (Net/ Gross)	3.1Kg/4.3Kg	1.8Kg/3.0Kg	1.2Kg/2.4Kg	2.1Kg/4.5Kg
	Safety / EMC	CE/FCC	CE/FCC	CE/FCC/LVD	CE/FCC/LVD
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP Embedded, Linux		Microsoft® Windows 7, Microsoft® WES7	

*Notes : Power adapter supports 0°C ~ 40°C

ECN-780-Q67

Embedded System with 2nd Gen Intel® Core™ i7/i5/i3 Desktop Processors

Features

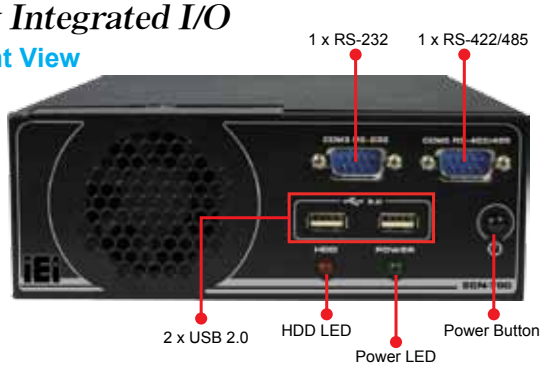
- 2nd Generation Intel® Core™ i7/i5/i3, Pentium® and Celeron® desktop processors
- Intel® HD graphics supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0
- On-board 2GB DDR3 memory and one DDR3 SO-DIMM slot (system max. 10GB)
- Dual Gigabit Ethernet with Intel® AMT 7.0 support
- Dual display output supported by VGA/DVI/HDMI
- Optional 1T1R 2.4GHz 2.4GHz 802.11b/g/n Wi-Fi
- Easy to install SATA hard drive
- USB 3.0 ports provide super speed data transfer

Specifications

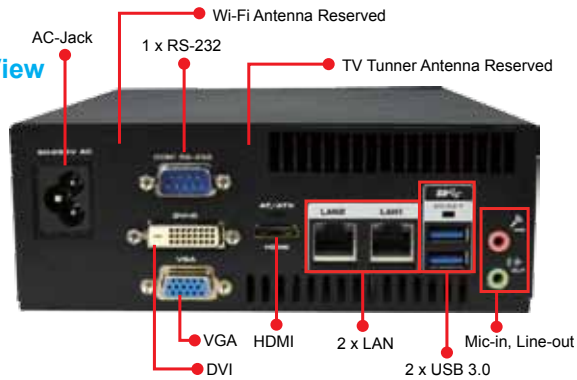
Model Name		ECN-780-Q67
Chassis	Color	Black
	Dimensions (WxDxH)	230 x 173 x 60 (mm)
	System Fan	1 x 80 mm
	Chassis Construction	SECC
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W
	Chipset	Intel® Q67
	System Memory	On-board DDR3 2GB memory 1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 10GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
	mSATA	Optional
I/O interfaces	USB 3.0	2
	USB 2.0	2
	Ethernet	2 x RJ-45 LAN1: Intel® 82579 PHY Ethernet with Intel® AMT 7.0 support LAN2: Intel® 82583V Ethernet
	RS-232	2 x DB-9
	RS-422/485	1 x DB-9
	Display	1 x HDMI, 1 x DVI-D, 1 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz DVI-D: Up to1920 x 1080 @ 60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	2 x Full size (reserved for Wi-Fi and TV-Tunner)
Power	Power Input	100~ 240 AC input
	Power Consumption	19V@3.5A (Intel® Core™ i7-2600S with 1333MHz 4GB DDR3 memory)
Reliability	Mounting	Wall mount
	Operating	-20°C ~ 50°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-1with SATA HDD, MIL-STD-810F 514.5C-2 with CompactFlash® / SSD
	Weight (Net/Gross)	3.1 Kg/4.3 Kg
	Safety & EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP, Embedded, Linux

Fully Integrated I/O

• Front View



• Rear View



Easily accessible hard disk drive

The hard disk drive can be accessed easily by removing screws from the HDD bracket.

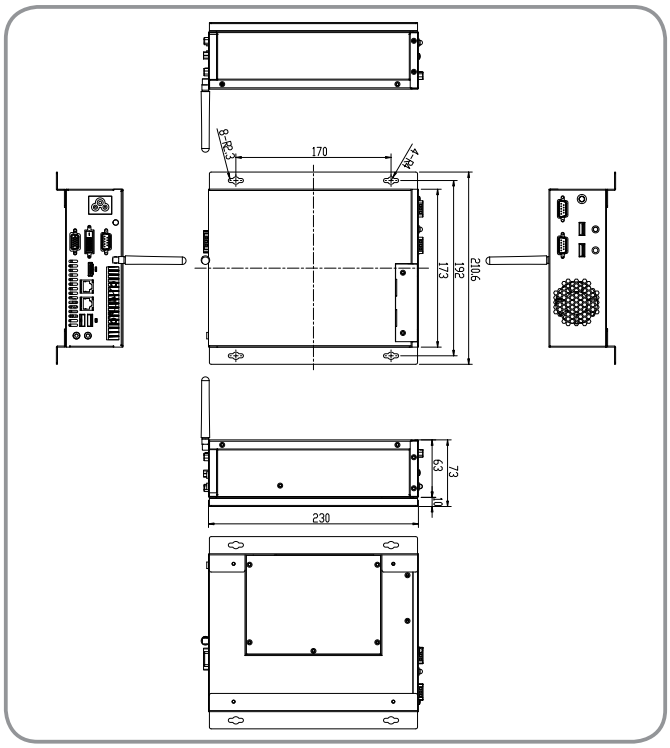
In-chassis power adapter

The ECN-780 has a built-in power adapter module to prevent disorder situations and inconveniences caused by an external power adapter.

Dual display by VGA/DVI/HDMI

- The ECN-780 has three types of display interfaces - VGA, DVI and HDMI, which support dual display and high resolution
- VGA supports resolutions up to 2048x1536@75Hz
- HDMI supports resolutions up to 1920x1200@60Hz
- DVI supports resolutions up to 1920x1080@60Hz

Dimensions (Unit: mm)



Packing List

Item	Part No.	Quantity	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power cord	32702-000401-100-RS	1	1500 mm, European Standard
Wi-Fi antenna (for Wi-Fi module only)	32505-000900-100-RS	1	External Antenna
Mounting brackets		2	
Mounting bracket screws	44015-030041-RS	4	Mounting brackets screw
Power cord convert cable	32000-089400-RS	1	Covert normal type cord to triangle type cord cable
Thermal pad	34100-000197-RS	1	Thermal pad, 27.5 x 27.5 x 1.0mm, Silicone, K=6, Color : Reddish gray, RoHS

Ordering Information

Part No.		Description
ECN-780-Q67-i5-R10		Embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, supports Intel® AMT 7.0, 100~240VAC Input, built-in 90W adapter, black, R10
ECN-780W-Q67-i5-R10		Embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, build-in 802.11b/g/n wireless, supports Intel® AMT 7.0, 100~240VAC Input, built-in 90W adapter, black, R10
ECN-780-Q67-i3-R10		Embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, 100~240VAC Input, built-in 90W adapter, black, R10
ECN-780W-Q67-i3-R10		Embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, built-in 802.11b/g/n wireless, 100~240VAC Input, built-in 90W adapter, black, R10
ECN-780-Q67-P-R10		Embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, 100~240VAC Input, built-in 90W adapter, black, R10
ECN-780W-Q67-P-R10		Embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, 2GB DDR3 on-board memory, dual display multimedia BOX, Dual GbE LAN, built-in 802.11b/g/n wireless, 100~240VAC Input, built-in 90W adapter, black, R10
Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333MHz 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333MHz 4GB

ECN-680A-H61

Embedded System with 2nd Gen Intel® Core™ i7/i5/i3 Desktop Processors

Features

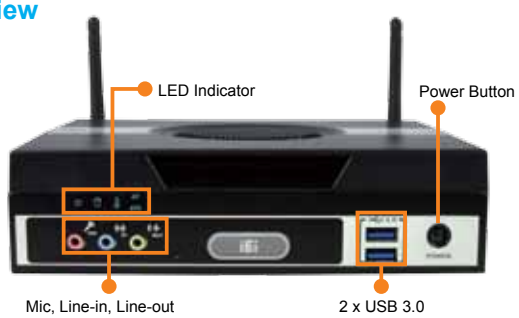
- 2nd Generation Intel® Core™ i7/i5/i3 Pentium® and Celeron® desktop processor supported
- Intel® HD graphics supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0
- One 204-pin DDR3 SO-DIMM slot (system max. 8GB)
- Dual DVI display output supported
- Optional 2.4GHz 802.11 b/g/n 2T2R MIMO Wi-Fi for high-speed wireless transmission
- Wide DC power input range 9 ~ 36V
- Extended temperature design supports -20°C to 60°C with air flow condition
- USB 3.0 for super high speed data transfer
- TPM V1.2 hardware security function supported

Specifications

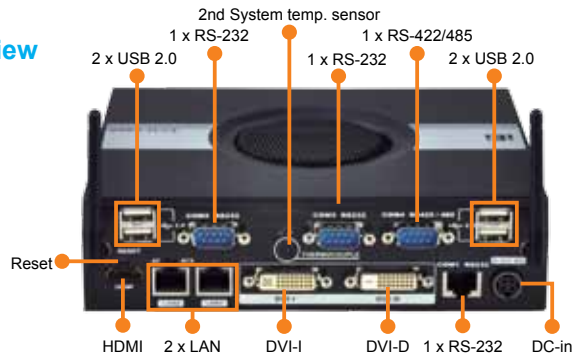
Model Name		ECN-680A-H61
Chassis	Color	Black
	Dimensions (W x D x H)	222 x 163 x 54.5 mm
	System Fan	1 x 80 mm
	Chassis Construction	SECC + Plastic
Motherboard	CPU	2nd Generation Intel® -Core™ i5-2xxT, dual-core (above 2.7GHz), 35W -Core™ i3-2xxT, dual-core (above 2.5GHz), 35W -Pentium® G6xxT, dual-core (above 2.2GHz), 35W
	Chipset	Intel® H61
	System Memory	1 x 204-pin DDR3 SO-DIMM support up to 1066/1333 MHz Pre-installed 2GB (System Max: 8GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
	Msata	Optional
I/O interfaces	USB 3.0	2
	USB 2.0	4
	Ethernet	2 x RJ-45 LAN1: Intel® 82579 PHY , LAN2: Intel® 82583V Ethernet
	RS-232	2 x DB-9, 1 x RJ-45
	RS-422/485	1 x DB-9
	Display	1 x HDMI, 1 x DVI-D, 1 x DVI-I
	Resolution	HDMI: Up to1920 x 1200 @ 60Hz, DVI-D / DVI-I: Up to 1920 x 1080 @ 60Hz
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (reserved for Wi-Fi)
Power	Power Input	DC Jack: 9~36V
	Power Consumption	19V@3.6A (Intel® Core™ i7-2600S with 1333MHz 4GB DDR3 memory)
Reliability	Mounting	Wall mount
	Operating	-20°C ~ 60°C with air flow (SSD),5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-1 with SATA HDD, MIL-STD-810F 514.5C-2 with CompactFlash® / SSD
	Weight (Net/Gross)	1.8 Kg/3.0 Kg
	Safety & EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E, Microsoft® Windows® XP, Embedded, Linux

Fully Integrated I/O

• Front View



• Rear View



Easily accessible hard disk drive

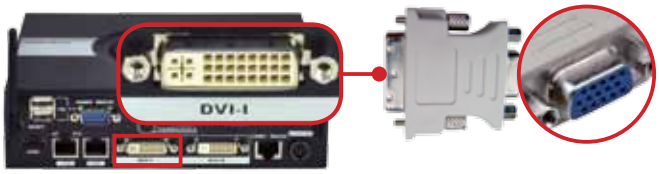
The hard disk drive can be easily accessed by removing screws from the HDD bracket.

Customized RS-232/422/485

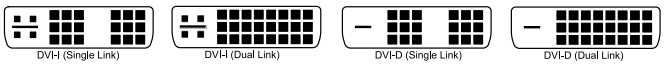
The ECN-680A has one RS-422/485 and two RS-232 for COM ports. The flexibility of the two COM ports allow the user to choose two RS-232 or one RS-232 and one RS-422/485 according to applications.

Dual DVI display and full HD display

- The ECN-680A has DVI-I, DVI-D display interfaces which supports dual display and high resolution with audio output for signage applications.
- DVI-I and DVI-D support resolutions up to 1920x1200@60Hz

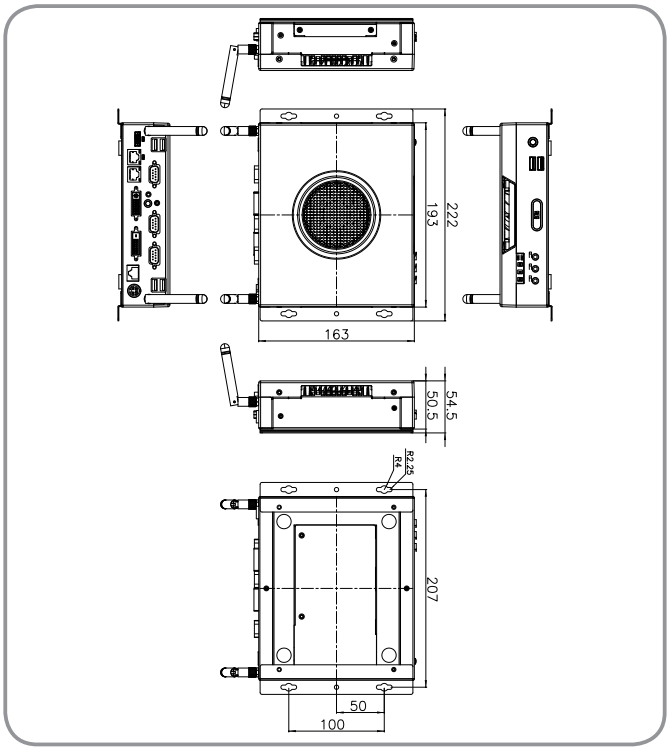


DVI interfaces



Classify	Single	Convert VGA	Transfer Speed	Max resolution refresh rate
DVI-I single link	Digital/Analog	Yes	165Mbps	1920x1080, 60hz/ 1600x1200, 60hz
DVI-I dual link	Digital/Analog	Yes	330Mbps	2560x1600, 60Hz/ 1920x1080, 120Hz
DVI-D single link	Digital	No	165Mbps	1920x1080, 60hz/ 1600x1200, 60hz
DVI-D dual link	Digital	No	330Mbps	2560x1600, 60Hz/ 1920x1080, 120Hz

Dimensions (Unit: mm)



Packing List

Item	Part No.	Quantity	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power adapter	63040-010090-020-RS	1	FSP090-D2BA1, 90 ~ 264VAC input, 90W, 19VDC output, Din 4-pin
Power cord	32702-000401-100-RS	1	1500 mm, European Standard
Power cord convert cable	32000-089400-RS	1	Convert normal type cord to triangle type cord cable
Wi-Fi antenna (for Wi-Fi module only)	32505-000900-100-RS	2	External antenna
Mounting brackets	41020-0343C2-00-RS	2	Wall mount kit
Mounting bracket screws	44015-030041-RS	8	Mounting brackets screw/HDD securing screw
RJ-45 to DB-9 COM port cable	32005-000200-200-RS	1	Round cable, RS-232/422/485, RS-232 cable, 2, 300mm, 26AWG, (A)D-SUB 9P male, (B)RJ-45 8P8C+SHELL, RoHS
Thermal pad	34100-000197-RS	1	Thermal pad, 27.5x27.5x1.0mm, Silicone,K=6, Color : Reddish gray, RoHS
RS-422/485 Cable	32205-004200-100-RS	1	Flat cable, RS-232/422/485, RS-422/485 Cable, 2, 100mm, 28AWG, (A)DU PONT 2*4P P=2.0 Female, IDIOT-PROOF, (B)D-SUB 9P, RoHS

Ordering Information

Part No.	Description
ECN-680A-H61-i5-R10	Embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10
ECN-680AW-H61-i5-R10	Embedded system, Core™ i5 Dual Core 2xxT CPU (Above 2.7GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, build-in 802.11b/g/n wireless, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10
ECN-680A-H61-i3-R10	Embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10
ECN-680AW-H61-i3-R10	Embedded system, Core™ i3 Dual Core 2xxT CPU (Above 2.5GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, build-in 802.11b/g/n wireless, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10
ECN-680A-H61-P-R10	Embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10
ECN-680AW-H61-P-R10	Embedded system, Pentium® Dual Core G6xxT CPU (Above 2.2GHz), TDP 35W, Pre-installed 2GB DDR3 RAM*1, dual DVI display multimedia box, Dual GbE LAN, build-in 802.11b/g/n wireless, HDMI, TPM, 9~28VDC Input, 90W adapter, black, R10

Memory Selection	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333MHz 2GB	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333MHz 4GB

IOPS-Q67/H61

Intel® OPS Compliant Digital Signage Pluggable Module PC

Features

- Designed for pin compliance with Intel® OPS (Open Pluggable Specification)
- Supports DisplayPort, UART, USB 2.0
- Intel® HD Graphics with Full HD video decoding capability
- Intel® Q67/H61 platform

Specifications

Model Name		IOPS-H61	IOPS-Q67
Chassis	Color	Black	Black
	Dimensions (WxDxH)	200 x 171 x 30 mm	200 x 171 x 30 mm
	System Fan	1 x 60 mm	1 x 60 mm
	Chassis Construction	Aluminum Alloy	Aluminum Alloy
Motherboard	CPU	Intel® Celeron® Dual Core G530 2.4 GHz, 65W	Intel® Dual Core™ i5-2390T 2.7 GHz, 35W
	Chipset	Intel® H61	Intel® Q67
	System Memory	1 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 8GB)	1 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 8GB)
Storage	mSATA	32GB	32GB
I/O interfaces	USB 2.0	2	2
	Ethernet	1 x RJ-45 Intel® 82579LM GbE	1 x RJ-45 Intel® 82579LM GbE with Intel® AMT 7.0 support
	RS-232	1 x RJ-45	1 x RJ-45
	Display	1 x DisplayPort 1.1	1 x DisplayPort 1.1
	Resolution	OPS display: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600	OPS display: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600
	Audio	1 x Line-out	1 x Line-out
	Other	1 x SDHC card	1 x SDHC card
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (default mSATA 32GB)	1 x Full size (default mSATA 32GB)
Power	Power Input	12~19V DC	12~19V DC
	Power Consumption	12V@3.83A (Intel® Celeron® G530 with 4G DDR3 memory)	12V@3.83A (Intel® Celeron® G530 with 4G DDR3 memory)
Reliability	Mounting	OPS module PC	OPS module PC
	Operating Temperature	0°C ~45°C with air flow (mSATA),5% ~ 95%, non-condensing	0°C ~45°C with air flow (mSATA),5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operation Vibration	MIL-STD-810F 514.5C-2 with mSATA	MIL-STD-810F 514.5C-2 with mSATA
	Weight (Net/Gross)	1.2Kg/2.4Kg	1.2Kg/2.4Kg
	Safety / EMC	CE/FCC/LVD	CE/FCC/LVD
OS	Supported OS	Microsoft® Windows 7, Microsoft® WES7	Microsoft® Windows 7, Microsoft® WES7

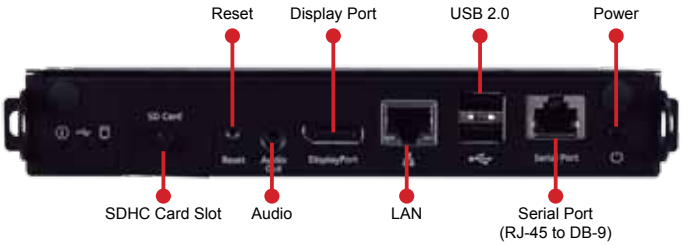
OPS (Open Pluggable Specification) module PC can be inserted into any OPS compatible display to satisfy customers' various requirements.

Compatible Display Model

Display Brand	Display Model
NEC	X461S (46")
TVS	DS-42 (42")
TPV	DS421OMC (42")
Philips	BDL-4245E (42")
Mitsubishi	MDT551S (55")
eJump	PX420CHN-OPS (42")

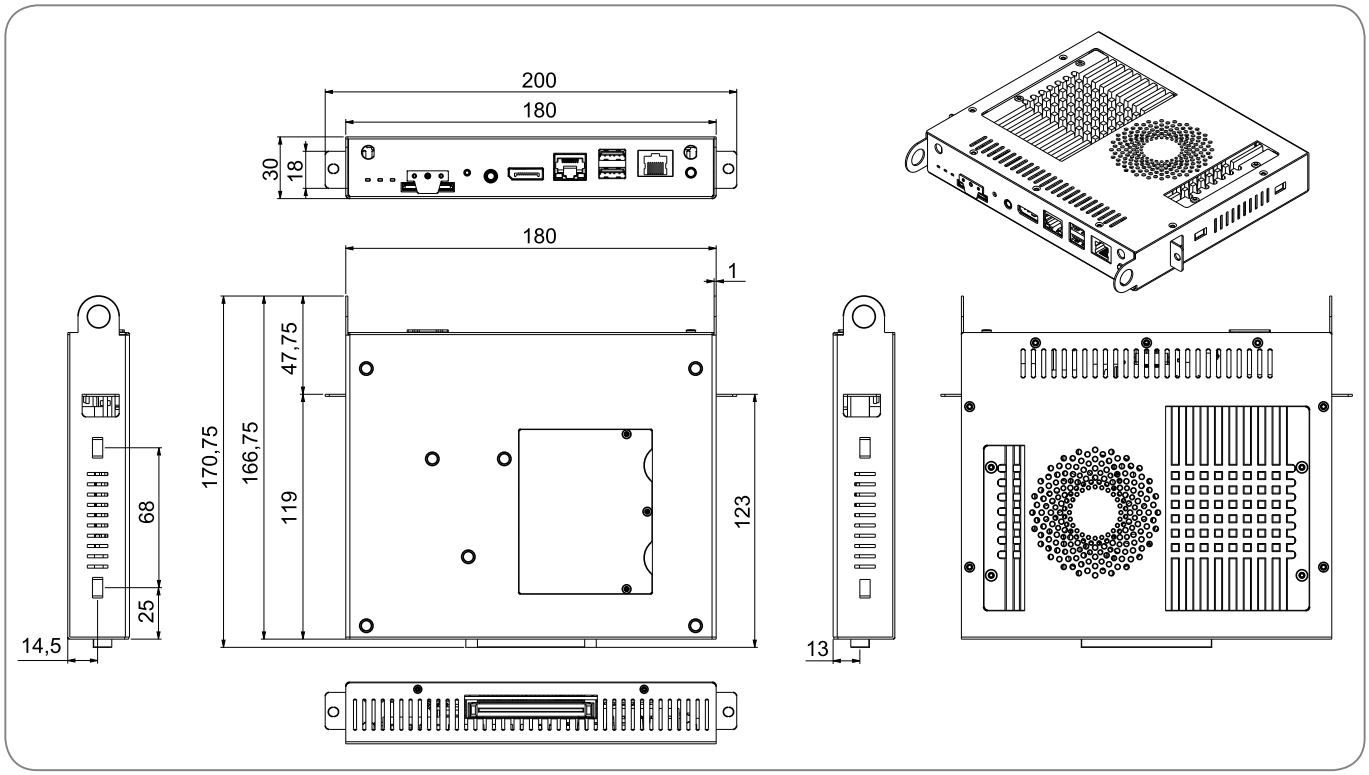
Fully Integrated I/O

Front View



Rear View

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IOPS-H61-C-4GB-R10	OPS Module PC, Intel® Celeron® G530 2.4GHz, TDP 65W, 4GB DDR3 SO-DIMM pre-installed, mSATA 32GB, DisplayPort, Intel® GbE, JAE 80-pin connector, USB 2.0, serial port, SDHC card slot, HD Audio, 0°C~45°C, R10
IOPS-Q67-i5-4GB-R10	OPS Module PC, Intel® i5-2390T 2.7GHz, TDP 65W, 4GB DDR3 SO-DIMM pre-installed, mSATA 32GB, DisplayPort, Intel® GbE, JAE 80-pin connector, USB 2.0, serial port, SDHC card slot, HD Audio, 0°C~45°C, R10

Options

Item	Part No.	Description
OS: Windows Embedded Standard 7	IOPS-Q67-WES7E-R10	OS Image with Windows® Embedded Standard 7 E, for IOPS-Q67/H61 series

Packing List

Item	Qty	Description
Utility CD	1	Drivers and user manual
RS-232 cable (RJ-45 to DB-9)	1	

IDS-H61/Q77

High Performance Digital Signage Player

Features

- Fanless Design Digital Signage Player
- Supports DisplayPort, DVI/VGA, Gigabit Ethernet, USB 2.0
- Intel® HD Graphics with Full HD video decoding capability
- Intel® H61/Q77 platform

Specifications

Model Name		IDS-H61	IDS-Q77
Chassis	Color	Black	Black
	Dimensions (WxDxH)	267 x 160 x 45 mm	267 x 160 x 45 mm
	System Fan	Fanless	Fanless
	Chassis Construction	Aluminum Alloy	Aluminum Alloy
Motherboard	CPU	Intel® Celeron® Dual Core G530T 2.0 GHz, 35W	Intel® i5-3470T 2.9 GHz, 35W
	Chipset	Intel® H61	Intel® Q77
	System Memory	2 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 16GB)	2 x 204-pin DDR3 SO-DIMM 1333 MHz Pre-installed 4GB (System Max: 32GB)
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
	mSATA	32GB	32GB
	SDHC	1 x SDHC card slot	1 x SDHC card slot
I/O interface	USB 3.0	N/A	2
	USB 2.0	4	4
	Ethernet	1 x RJ-45 Intel® 82579LM GbE	1 x RJ-45 Intel® 82579LM GbE
	RS-232	1 x DB-9	1 x DB-9
	Display	1 x DVI-I 1 x DisplayPort 1.1	1 x DVI-I 2 x DisplayPort 1.1
	Resolution	DVI-I: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600	DVI-I: Up to 1920 x 1200 DisplayPort: Up to 2560 x 1600
	Audio	1 x Line-out	1 x Line-out
	Other	1 x SDHC card	1 x SDHC card
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (default mSATA 32GB) 1 x Half size	1 x Full size (default mSATA 32GB) 1 x Half size
Power	Power Input	DC Jack: 12V DC	DC Jack: 12V DC
	Power Consumption	12V@3.41A Intel® Celeron® G530T with 4G DDR3 memory)	12V@3.41A Intel® Celeron® G530T with 4G DDR3 memory)
Reliability	Mounting	Wall mount	Wall mount
	Operating Temperature	0°C~45°C with air flow (mSATA), 5% ~ 95%, non-condensing	0°C~45°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operation Vibration	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with mSATA	MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with mSATA
	Weight (Net/Gross)	2.1Kg/4.5Kg	2.1Kg/4.5Kg
	Safety / EMC	CE/FCC/LVD	CE/FCC/LVD
OS	Supported OS	Microsoft® Windows 7, Microsoft® WES7	Microsoft® Windows 7, Microsoft® WES7

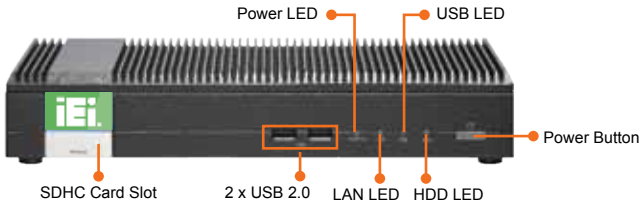
Supported Multimedia Objects

- Video: Support MPEG-1/2/4, WMV, FLV, H.264, VC-1 video formats.
- Audio: Support MP3, AC3, AAC, WMA, WAV.
- Image: Support BMP, JPG, JPEG, JPE, PNG.
- Text: Support messages from text strings, text files and RSS. The scrolling speed is adjustable.
- Flash: Support Flash 10.
- Clock: Support digital, analog, and multiple real-time clocks.

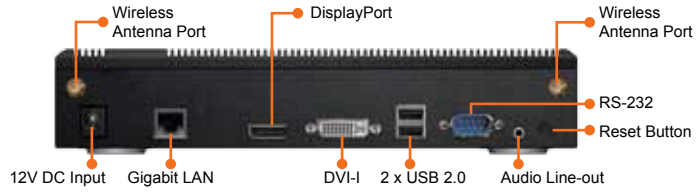
Mulitple video outputs
IDS-Q77 supports triple display

Fully Integrated I/O

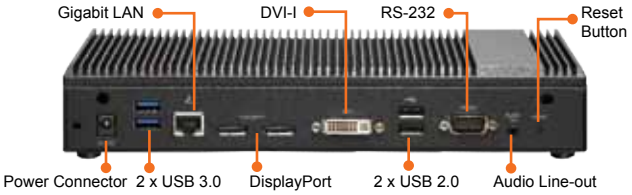
•IDS-H61/Q77 Front I/O



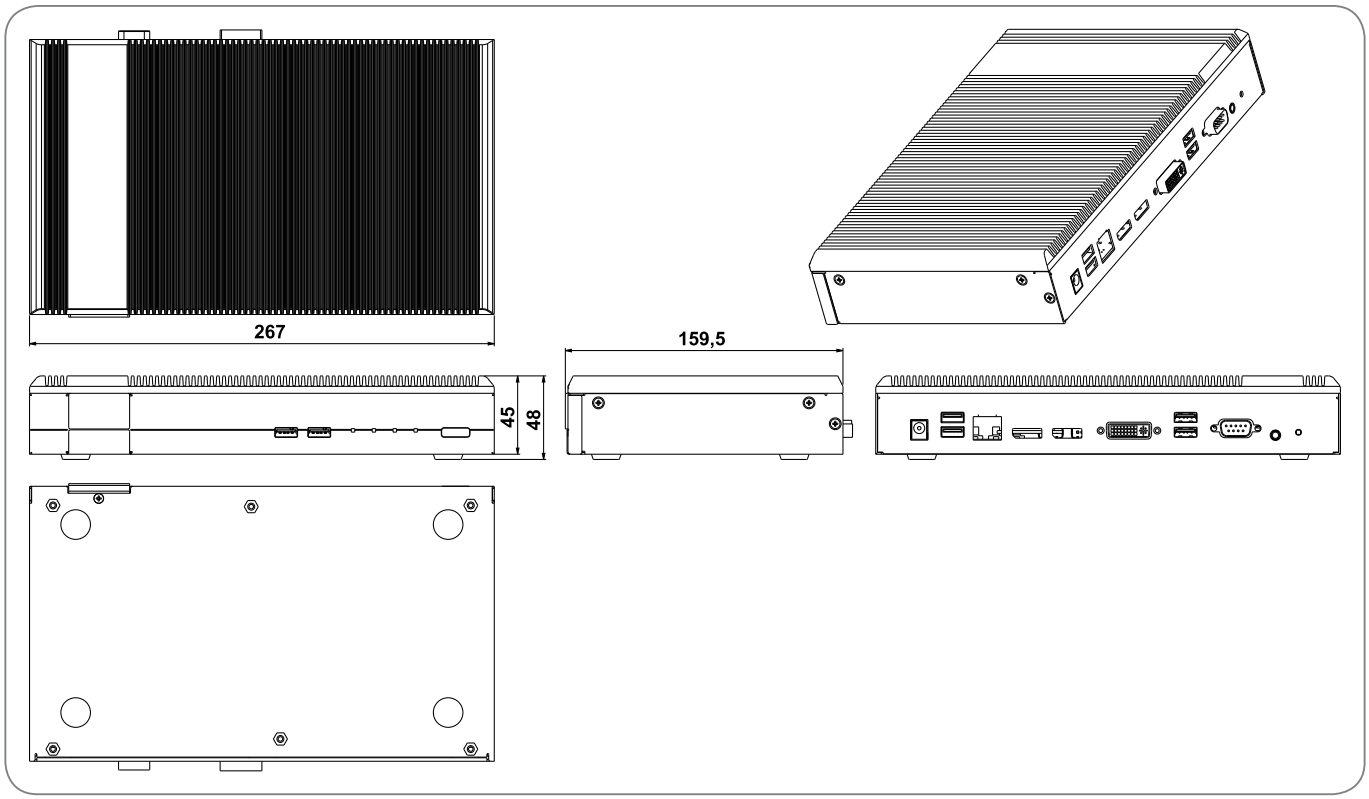
•IDS-H61 Rear I/O



•IDS-Q77 Rear I/O



Dimensions *(Unit: mm)*



Ordering Information

Part No.	Description
IDS-H61-C-4GB-R10	Fanless embedded system, Intel® Celeron® G530T 2.0GHz, TDP 35W, 2GB x 2 DDR3 SO-DIMM pre-installed, mSATA 32GB, DisplayPort, Intel® GbE, DVI, 2.5" HDD bay, USB 2.0, serial port, SDHC card slot, HD Audio, 0°C~45°C, R10
IDS-Q77-I5-4GB-R10	Fanless embedded system, ntel® i5-3470T 2.9GHz, TDP 35W, 2GB x 2 DDR3 SO-DIMM pre-installed, mSATA 32GB, 2 x DisplayPort, Intel® GbE, DVI, 2.5" HDD bay, USB 3.0/2.0, serial port, SDHC card slot, HD Audio, 0°C~45°C, R10

Options

Item	Part No.	Description
Windows Embedded Standard 7	IDS-H61-WES7E-R10	OS Image with Windows® Embedded Standard 7 E, for IDS-H61 series

Packing List

Item	Qty	Description
Utility CD	1	Drivers and user manual
Power adapter	1	Adapter Power, Delta, DPS-90FB A A00, Vin:100~240V AC, 90W, Vout:12V DC, CCL, RoHS
Wall mount kit	1	WALL MOUNT BRACKET, NCT, IS-1600, PAINTING, BLACK, SECC, VER:01, CCL, RoHS

Compact Size Embedded System

Fanless

New DIN-Rail New

Model Name		DRPC-100-CV	uIBX-210-CV-N2600	uIBX-200-VX800B	uIBX-200-Z510P	IBX-530B-N270
Chassis	Color	Black	Silver	Silver		Black
	Dimensions (WxDxH)	59.4 x 140 x 170 mm	146.6 x 132 x 45.2 mm	120 x 120 x 44.4 mm		210 x 108.2 x 39 mm
	System Fan	Fanless	Fanless	Fanless		Fanless
	Chassis Construction	Extruded aluminum alloy	Aluminum Alloy	Aluminum Alloy		Aluminum Alloy
Motherboard	CPU	Intel® Atom™ N2800 1.86GHz	Intel® Atom™ N2600 1.6GHz	VIA® Eden™ ULV 1GHz	Intel® Atom™ Z510P 1.1 GHz	Intel® Atom™ N270 1.6GHz
	Chipset	Intel® NM10	Intel® NM10	VIA® VX800	Intel® US15WP	Intel® 945GSE + ICH7M
	System Memory	1 x 204 pin DDR3 SO-DIMM (System Max 4GB) Pre-installed 2GB	1 x 204pin DDR3 SO-DIMM (System Max 2GB) Pre-installed 2GB	On-board DDR2 1GB memory	On-board DDR2 1GB memory	1 x 200pin DDR2 SO-DIMM (System Max 2GB) Pre-installed 1GB
Storage	Hard Drive	N/A	1 x 2.5" SATA HDD Bay	N/A		N/A
	CompactFlash®	1 x CF Type II	N/A	1 x CF Type II		1 x CF Type II
I/O interfaces	PS2 (KB/MS)	N/A	N/A	N/A		N/A
	USB 3.0	N/A	N/A	N/A		N/A
	USB 2.0	4	4	4		4
	Ethernet	2 x RJ-45 Realtek 8111E PCIe GbE	1 x RJ-45 Realtek 8111E PCIe GbE	1 x RJ-45 Realtek 8111CP PCIe GbE		2 x RJ-45 Realtek 8111CP PCIe GbE
	RS-232	2 x DB-9 w/3KV isolation protection	2 x DB-9	2 x DB-9		2 x DB-9
	RS-422/485	2 x DB-9 w/3KV isolation protection	1 x RJ-45	N/A		N/A
	Digital I/O	1 x Phoenix terminal block w/ 3KV isolation protection 8-bit Digital I/O, 4-bit input / 4-bit output	N/A	N/A		N/A
	CAN-bus	1 x Phoenix terminal block w/ 3KV isolation protection, supporting 2-port CAN-bus	N/A	N/A		N/A
	Display	1 x VGA	1 x VGA , 1 x HDMI	1 x VGA		1 x VGA
	Resolution	Up to 1920 x 1200 @ 60Hz	VGA : Up to 1920 x 1200 HDMI : Up to 1920 x 1080	VGA: Up to1920 x 1440 @ 60Hz	Up to 1600 x 1200 @ 60Hz	VGA: Up to 1900 x 1200 @ 60Hz
	Audio	N/A	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in		1 x Line-out
	Other	SATA DOM support	N/A	N/A		1 x eSATA
	Wireless	N/A	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)		1 x 802.11b/g/n (optional)
Expansions	PCI	N/A	N/A	N/A		N/A
	PCIe	N/A	N/A	N/A		N/A
	PCIe Mini	1 x Full size (reserved for mSATA)	1 x Full size (reserved for Wi-Fi module)	1 x Full size (reserved for Wi-Fi module)		1 x Full size (reserved for Wi-Fi module)
Power	Power Input	3-pin terminal block: 9~28V DC	DC Jack: 12V DC	DC Jack: 5V DC		DC Jack: 12V DC
	Power Consumption	12V@1.85A (Intel® Atom™ N2600 with 2GB DDR3 memory)	12V@1.57A Intel® Atom™ N2600 with 2GB DDR3 memory	5V@2.52A (VIA® Eden™ 500MHz DDR2 512MB) 5V@3.2A (VIA® Eden™ 1GHz DDR2 1GB)	12V@1.98A (Intel® Atom™ Z510P with 1GB DDR2 memory)	12V@1.28A (Intel® Atom™ N270 with 1GB DDR2 memory)
Reliability	Mounting	DIN-rail	VESA 75 / 100	VESA 75 / 100		Din-rail, VESA 75, Wall mount
	Operating Temperature	-25°C ~65°C with air flow (mSATA), 5% ~ 95%, non-condensing	0°C ~50°C with air flow (mSATA), 5% ~ 95%, non-condensing	0°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing		-10°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis				
	Operation Vibration	Meet MIL-STD-810F 514.5C-2	Meet MIL-STD-810F 514.5C-1	Meet MIL-STD-810F 514.5C-2		
	Weight (Net/ Gross)	1Kg/2Kg	980g/1.8Kg	480g/1.5Kg		645g/1.8Kg
	Safety / EMC	CE/FCC				
OS	Supported OS	Microsoft® WES7E Microsoft® Windows® XP Embedded	Microsoft® WES7E Microsoft® Windows® XP Embedded Microsoft® Windows® CE 6.0	Microsoft® Windows® XP Embedded Microsoft® Windows® CE 5.0		Microsoft® Windows® XP Embedded Microsoft® Windows® CE 6.0

DRPC-100-CV

Fanless Embedded DIN-Rail Mounting System with Intel® Atom™ N2800 Dual Core Processor

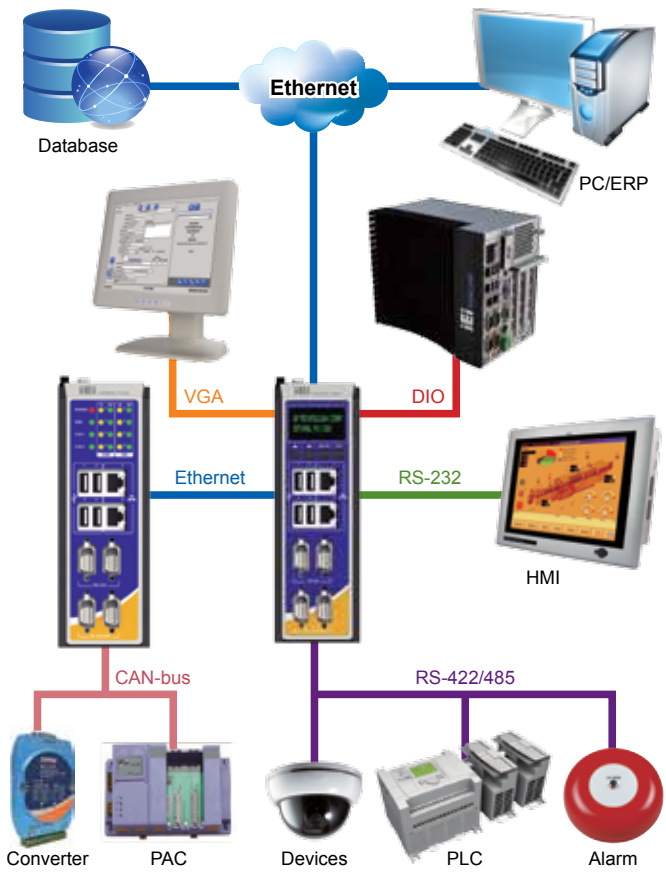
Features

- Intel® Atom™ N2800 processor supported
- Low power consumption [N2800 + NM10 (6.5w +1.5w)]
- Intel® GMA 3650 with 640 MHz and supports Blu-ray 2.0, DirectX 9, MPEG-2, H.264, C-1 and 1080p decoding
- Supports 1066 MHz DDR3 SO-DIMM (up to 4 GB)
- Supports one mSATA, one SATA DOM and one CompactFlash®
- Wide range (9V~28V) DC power input
- One PCIe Mini expansion slot for add-on function purpose
- Supports two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus and one 8-bit DIO
- Serial, CAN-bus and Digital I/O interfaces with isolation protection
- Extended temperature fanless design supports -25ºC to 65ºC (with SSD)
- Dual PCIe GbE LAN for high-speed network applications
- Programmable OLED display

The DRPC-100 is designed for harsh environment applications, such as high surge ESD automation environments, factory automation, heavy vehicle application and building automation (elevator, warehouse with air-conditioning control system and environment monitoring).

Communication Gateway

For high surge ESD automation environments, the DRPC-100 provides isolated digital IO, CAN-bus and serial communication ports.



Micro Controller for Building Automation

With rich I/O ports, such as COM, USB, Ethernet, CAN-bus, DIO and VGA, the DRPC-100 is able to be like a micro controller for building automation.

Fanless

The DRPC-100 series provides the best components for generating less heat, while maintaining high system performance. With the fanless design, the DRPC-100 reduces system failure caused by fans and extends the lifetime of the device.

Wide Range DC Power Input

The DRPC-100 series accepts a wide range DC power input, allowing it to be powered anywhere, no matter if a 12V, 24V DC source or 19V power adapter is available.

Wide Range Temperature

The DRPC-100 series is designed to withstand wide temperature ranges. With this design, the DRPC-100 series can even be installed in a high-temperature roadside cabinet.

A DIN rail is a metal rail of a standard type widely used for mounting circuit breakers and industrial control equipment inside equipment racks. These products are typically made from cold rolled carbon steel sheet with a zinc-plated and chromated bright surface finish. The term derives from the original specifications having been published by Deutsches Institut für Normung (DIN) in Germany, which have since been adopted as European (EN) and international (ISO) standards.

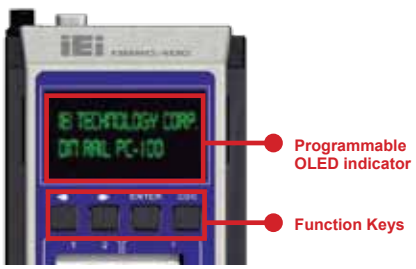
Rich I/O Function

- **Four USB Ports**
  Four USB ports can completely satisfy other USB devices or access requirements.
- **Dual GbE Ports**
  Dual GbE ports offer a diverse range of network communication options, helping users easily create an integrated industrial application that requires Ethernet protocols.
- **Serial Ports Interface with Isolation**
  The serial ports help millions of serial devices connect to the network for industrial applications. Our RS-232/422/485 serial ports provide powerful communication performance for all industrial device connectivity.
- **CAN-bus Interface with Isolation**
  Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to communicate or detect errors with each other within a vehicle, industrial automation and medical equipment. This drastically reduces the chance of data loss and ensures system reliability and is suitable for intelligent networking I/O devices such as sensors or actuator of machines or plants.
- **8-bit Digital I/O, 4-bit input/4-bit output Interface with Isolation**
  The DIO channels are quite useful for remote controlling, such as device power on/off, LEDs on/off, counter and cash drawer control.

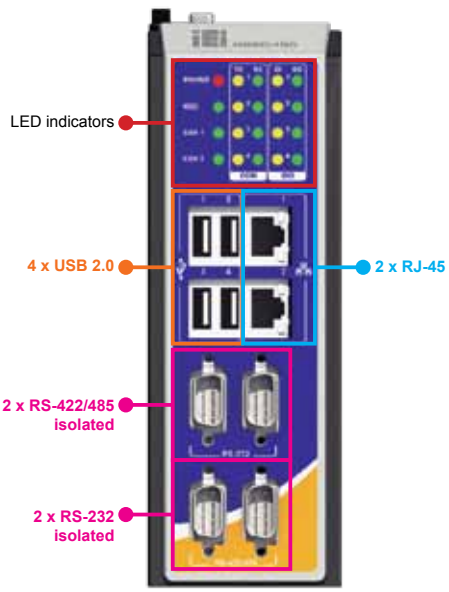
OLED Indicator Function

- **Programmable OLED Display**
  Users can program their own APIs to show any information by the OLED display.
- **Programmable Function Keys**
  Users can program the four keys to control DRPC-100 & OLED display.
- **Terminal Screen & Status Display**
  It not only shows text format but also graphics format.
- **Protocol & Demo Source Code Open**
  IEI provides the protocol & demo source code for users to program their own usage.

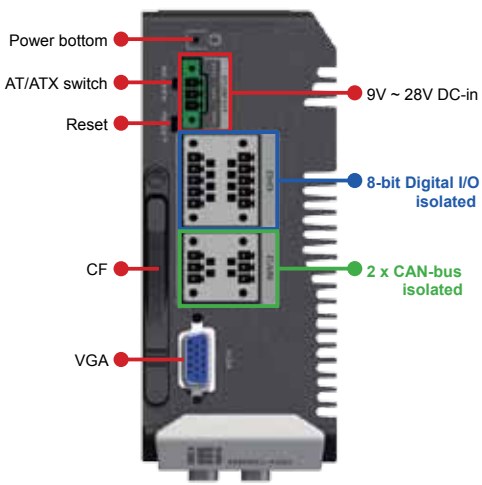
OLED indicator



DRPC-100 LED Front View



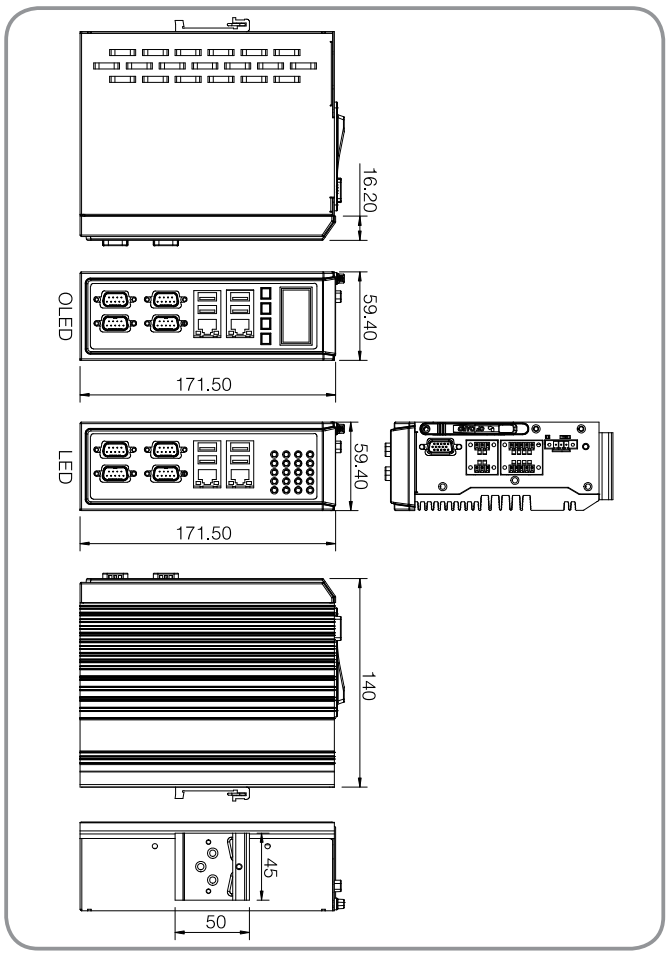
DRPC-100 OLED Front View



Specifications

Model Name		DRPC-100-CV
Chassis	Color	Black
	Dimensions (WxDxH)	59.4 x 140 x 170 mm
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom™ N2800 1.86GHz
	Chipset	Intel® NM10
	System Memory	1 x 204-pin DDR3 SO-DIMM (System Max 4GB) Pre-installed 2GB
Storage	CompactFlash®	1 x CF Type II
I/O interfaces	USB 2.0	4
	Ethernet	2 x RJ-45 Realtek 8111E PCIe GbE
	RS-232	2 x DB-9 w/3KV isolation protection
	RS-422/485	2 x DB-9 w/3KV isolation protection
	Digital I/O	1 x Phoenix terminal block w/ 3KV isolation protection 8-bit Digital I/O, 4-bit input / 4-bit output
	CAN-bus	1 x Phoenix terminal block w/ 3KV isolation protection, supporting 2-port CAN-bus
	Display	1 x VGA
	Resolution	Up to 1920 x 1200 @ 60Hz
	Other	SATA DOM support
Expansions	PCIe Mini	1 x Full size (reserved for mSATA)
Power	Power Input	3-pin terminal block: 9~28V DC
	Power Consumption	12V@1.85A (Intel® Atom™ N2600 with 2GB DDR3 memory)
Reliability	Mounting	DIN-rail
	Operating Temperature	-25°C ~65°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operation Vibration	Meet MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	1Kg/2Kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E Microsoft® Windows® XP Embedded

Dimensions (Unit: mm)



Packing List

1 x DRPC-100
5 x terminal block (3 x 3-pin, 2 x 5pin)
1 x DIN rail mounting bracket
1 x Utility CD
1 x One Key Recovery CD

Options

Item	Part No.	Description
OS: Win XPE (4GB CF card)	DRPCCF-100-CV-XPE-R10	OS Image with XPE, for DPRC-100-CV Series, W/CompactFlash® Memory Card 4GB
OS: Win 7 embedded (4GB CF card)	DRPCCF-100-CV-WES7E-R10	OS Image with Windows Embedded Standard 7 E, for DPRC-100-CV Series, W/CompactFlash® Memory Card 4GB
OS: Win CE 6.0 (128MB CF card)	DRPCCF-100-CV-CE6-R10	OS Image with CE6.0, for DPRC-100-CV Series, W/CompactFlash® Memory Card 128MB
OS: Win Linux (2GB CF card)	DRPCCF-100-CV-LNX-R10	OS Image with LINUX, for DPRC-100-CV Series, W/CompactFlash® Memory Card 2GB

Ordering Information

Part No.	Description
DRPC-100-CV-LED-R10	Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9V~28V DC, -20ºC to 65ºC, LED indeicators, RoHS
DRPC-100-CV-OLED-R10	Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9V~28V DC, -20ºC to 65ºC, OLED indeicators, RoHS
32102-026500-100-RS	Power cable 200mm, (A)DC JACK to (B) 3-pin terminal block P=3.5
63000-FSP036RAB610-RS	Adapter power, FSP, FSP036-RAB, Vin : 90~264VAC, 36W, Erp (NO LOAD 0.3W), Vout : 12VDC, Φ2.1/Φ5.5/lock, CCL, RoHS
32000-000002-RS	17.5cm European Standard power cord
32000-000025-RS	18.3cm American Standard power cord
IPE-5200IM-xxx	Flash disk, mSATA, SLC, 0°C ~70°C, R : 160MB/s, W : 150MB/s, 2GB~32GB
IPE-5200VM-xxx	Flash disk, mSATA, SLC, -40°C~85°C, R : 160MB/s, W : 150MB/s, 2GB~32GB

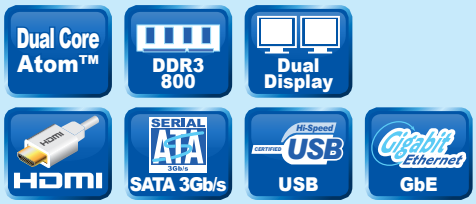
uIBX-210-CV-N2600

Fanless Embedded System with Intel® Atom™ N2600 DC 1.6GHz, Intel® NM10 Chipset, 2GB DDR3 Memory

New

Features

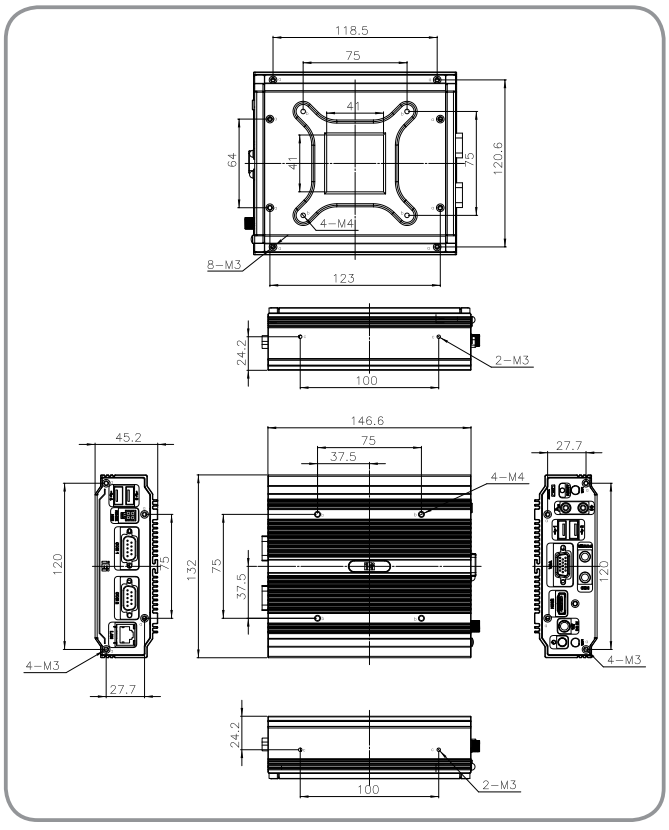
- Slim and compact embedded system design with Intel® 3rd Gen Atom™ N2600 dual-core processor, supports DDR3 memory (system max. 2GB)
- 12V only single voltage design, supports AT/ATX power mode selection
- Flexible VGA and HDMI with dual-display support
- Supports PCIe Mini card slot
- Fully I/O with four USB, one VGA, one HDMI, three COM and audio



Specifications

Model Name		uIBX-210-CV-N2600
Chassis	Color	Silver
	Dimensions (WxDxH)	146.6 x 132 x 45.2 mm
	System Fan	Fanless
	Chassis Construction	Aluminum Alloy
Motherboard	CPU	Intel® Atom™ N2600 1.6GHz
	Chipset	Intel® NM10
	System Memory	1 x 204-pin DDR3 SO-DIMM (System Max 2GB) Pre-installed 2GB
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
I/O interfaces	USB 2.0	4
	Ethernet	1 x RJ-45 Realtek 8111E PCIe GbE
	RS-232	2 x DB-9
	RS-422/485	1 x RJ-45
	Display	1 x VGA 1 x HDMI
	Resolution	VGA: Up to 1920 x 1200 HDMI: Up to 1920 x 1080
	Audio	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (reserved for Wi-Fi module)
Power	Power Input	DC Jack: 12V DC
	Power Consumption	12V@1.57A Intel® Atom™ N2600 with 2GB DDR3 memory
Reliability	Mounting	VESA 75 / 100
	Operating Temperature	0°C ~50°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G 11ms, 3 shocks per axis
	Operation Vibration	Meet MIL-STD-810F 514.5C-1
	Weight (Net/Gross)	980g/1.8Kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E Microsoft® Windows® XP Embedded Microsoft® Windows® CE 6.0

Dimensions *(Unit: mm)*



Packing List

1 x UIBX-210-CV-N2600-R10	1 x One Key Recovery CD
1 x Adaptor 12V/5A	1 x Utility CD
1 x Screw set	1 x QIG (Quick Installation Guide)

Ordering Information

Part No.	Description
uIBX-210-CV-N2600/2GB-R10	Fanless embedded system with Intel® Atom™ N2600 DC 1.6GHz, Intel® NM10 chipset, 2GB DDR3 memory, 12VDC-In, with 60W power adaptor PSE adaptor, black, RoHS
uIBX-210W-CV-N2600/2GB-R10	Fanless embedded system with Intel® Atom™ N2600 DC 1.6GHz, Intel® NM10 chipset, 2GB DDR3 memory, built-in 2T2R 802.11b/g/n wireless, 12VDC-In, with 60W power adaptor PSE adaptor, black, RoHS
UIBXVK-210B	VESA 75 mount kit for uIBX-210, black
VK-75100B	VESA mount 75 to100 adapter, black

uIBX-200 Series

uIBX-200-Z510P

- Internal dual SD card slot for storage expansion
- Ultra low power processor Intel® Atom™ Z510P
- Built-in H.264, MPEG1/2/4, VC1/WMV9 decoding

uIBX-200-VX800

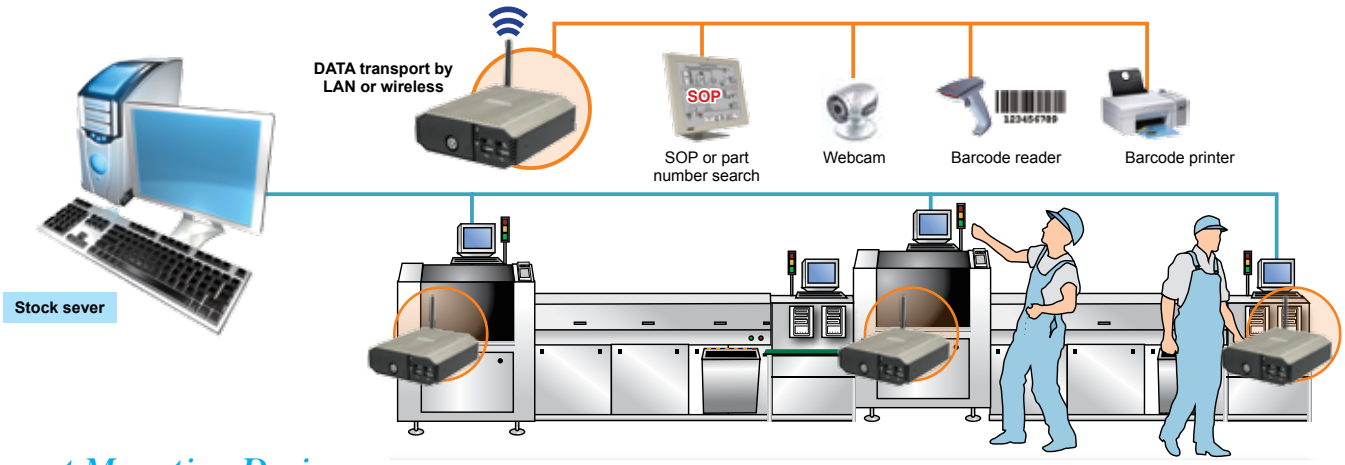
- VIA® Eden™ ULV 1GHz/500 MHz processor
- Supports MPEG2, WMV9/VC1 decoding
- Internal SATA connector (SATA DOM)

Fanless | On-board memory | Gigabit Ethernet | CF Slot | Lockable Door | Wi-Fi

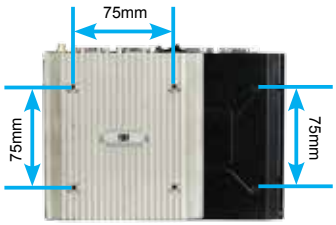
Ultra Compact Size

uIBX-200-VX800 at Production Line

The uIBX-200-VX800 has all the essential functions to work as a thin client on the production line. Operators can read the assembly SOP and search for part numbers online, get constant production schedule updates and other instructions from management.
During production, the component barcodes can be collected by the barcode scanner and updated to the production server either by batch or via LAN or Wi-Fi connection. Webcam can also be installed to collect image data during the production process.



Smart Mounting Design



uIBXVK-200B

VK-75100B

A. Wall mount

VESA 75 support. Easy to mount TOP or BOTTOM side.

AFLWK-12

uIBX-200 can be mounted directly on the wall with VESA 75 mounting kit

B. VESA mount 75

Step.1 Screws

Install the mount kit on the back of the monitor.

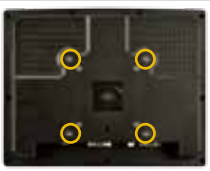
Step.2

Assemble the uIBX-200, stand and panel.

Step.3 Screw to fix uIBX-200

The direction of the installation can be adjusted for different applications.

C. VESA mount 100



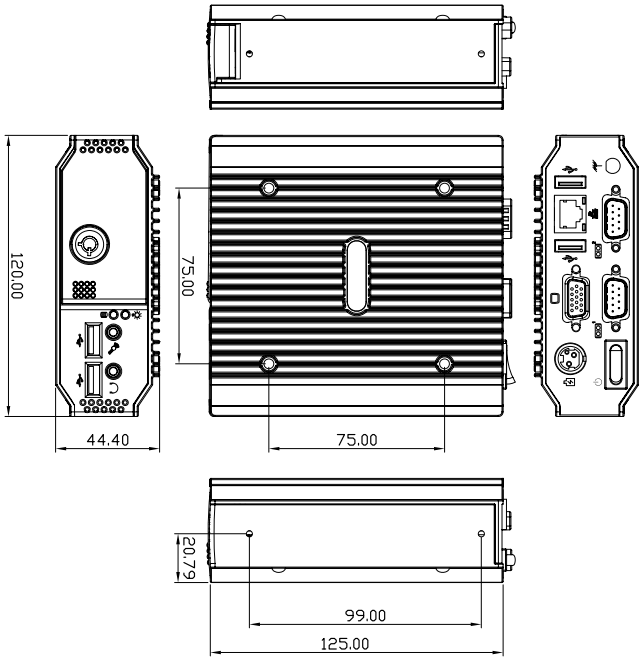
Secure the VK-75100B and panel using screws.

Mount it on the back of an LCD monitor to save even more space and create an all-in-one PC at the same time.

Specifications

Model Name		uIBX-200-VX800B	uIBX-200-Z510P
Chassis	Color	Silver	
	Dimensions (WxDxH)	120 x 120 x 44.4 mm	
	System Fan	Fanless	
	Chassis Construction	Aluminum Alloy	
Motherboard	CPU	VIA® Eden™ ULV 1GHz	Intel® Atom™ Z510P 1.1 GHz
	Chipset	VIA® VX800	Intel® US15WP
	System Memory	On-board DDR2 1GB memory	On-board DDR2 1GB memory
Storage	CompactFlash®	1 x CF Type II	
I/O interfaces	USB 2.0	4	
	Ethernet	1 x RJ-45 Realtek 8111CP PCIe GbE	
	RS-232	2 x DB-9	
	Display	1 x VGA	
	Resolution	VGA: Up to1920 x 1440 @ 60Hz	VGA: Up to1600 x 1200 @ 60Hz
	Audio	1 x Line-out, 1 x Mic-in	
	Wireless	1 x 802.11b/g/n (optional)	
Expansions	PCIe Mini	1 x Full size (reserved for Wi-Fi module)	
Power	Power Input	DC Jack: 5V DC	
	Power Consumption	5V@2.52A (VIA® Eden™ 500MHz DDR2 512MB) 5V@3.2A (VIA® Eden™ 1GHz DDR2 1GB)	12V@1.98A (Intel® Atom™ Z510P with 1GB DDR2 memory)
Reliability	Mounting	VESA 75 / 100	
	Operating Temperature	0°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing	
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis	
	Operation Vibration	Meet MIL-STD-810F 514.5C-2	
	Weight (Net/Gross)	480g/1.5Kg	
	Safety / EMC	CE/FCC	
OS	Supported OS	Microsoft® Windows® XP Embedded Microsoft® Windows® CE 5.0	

Dimensions (Unit: mm)



Packing List

1 x QIG
1 x Driver CD
2 x Keys (Part No.: 457007-003103-00-RS)
1 x Screw set
1 x 5V 25W Power adapter (with ERP/PSE certificate) (Part No.: 3000-FSP025DGAA1702-RS)
1 x 2dbi Wireless antenna (for wireless model only)
1 x One Key Recovery CD

Ordering Information

uIBX-200-Z510P

Part No.	Description
UIBX-200-R11/Z510P/1GB	Fanless embedded system with Intel® Atom™ Z510P 1.1GHz CPU, US15WP system chipset, on-board 1GB DDR2 memory, 5VDC in, 25W power adapter with ERP & PSE certificate, RoHS
UIBX-200W-R11/Z510P/1GB	Fanless embedded system with Intel® Atom™ Z510P 1.1GHz CPU, US15WP system chipset, on-board 1GB DDR2 memory, built-in 802.11b/g/n wireless, 5VDC in, 25W power adapter with ERP & PSE certificate, RoHS

uIBX-200-VX800

UIBX-200-R21/VX800B/1GB	Fanless embedded system with VIA® Eden™ ULV 1GHz CPU, VX800 chipset, on-board 1GB DDR2 memory, 5VDC-In, 25W power adapter with ERP & PSE certificates, black, ROHS
UIBX-200W-R21/VX800B/1GB	Fanless embedded system with VIA® Eden™ ULV 1GHz CPU, VX800 chipset, on-board 1GB DDR2 memory, built-in 802.11b/g/n wireless, 5VDC-In, 25W power adapter with ERP & PSE certificates, black, ROHS

Embedded OS options

UIBXCF-200-US15WP-CE060	Windows® CE 6.0 OS image, for uIBX-200-US15WP, with 128 MB CompactFlash® memory card, RoHS
UIBXCF-200-US15WP-XPE	Windows® XP Embedded OS image, for uIBX-200-US15WP, with 1GB CompactFlash® memory card, RoHS
UIBXCF-200-VX800-CE060	Windows® CE 6.0 OS image, for uIBX-200-VX800, with 128 MB CompactFlash® memory card, RoHS
UIBXCF-200-VX800-XPE	Windows® XP Embedded OS image, for uIBX-200-VX800, with 1GB CompactFlash® memory card, RoHS

Mounting kit

UIBXVK-200B	VESA 75 mount kit for uIBX-200, black
VK-75100B	VESA mount 75 to100 adapter, black

IBX-530B-N270

Fanless Intel® Atom™ Embedded System

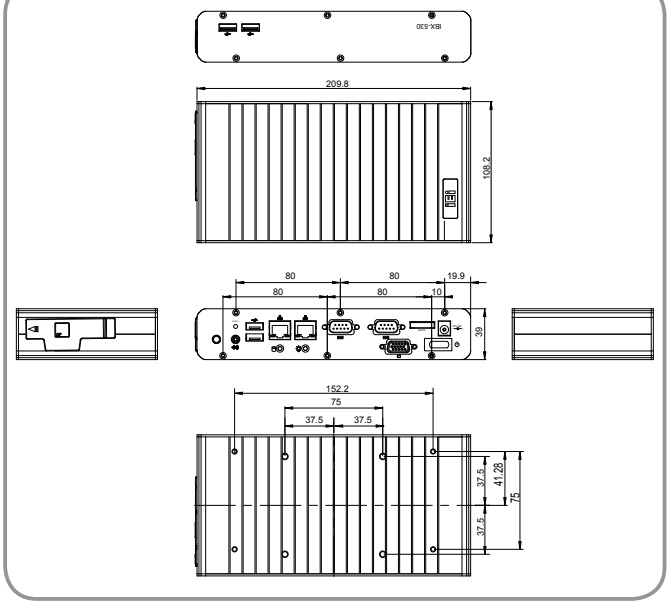
Features

- Intel® Atom™ N270 1.6GHz solution
- Intel® Graphics Media Accelerator 950 for better graphic performance
- Supports Hyper-Threading Technology
- Fanless operation under -10°C to 50°C

Specifications

Model Name		IBX-530B-N270
Chassis	Color	Black
	Dimensions (WxDxH)	210 x 108.2 x 39 mm
	System Fan	Fanless
	Chassis Construction	Aluminum Alloy
Motherboard	CPU	Intel® Atom™ N270 1.6GHz
	Chipset	Intel® 945GSE + ICH7M
	System Memory	1 x 200 pin DDR2 SO-DIMM (System Max 2GB) Pre-installed 1GB
Storage	CompactFlash®	1 x CF Type II
I/O interfaces	USB 2.0	4
	Ethernet	2 x RJ-45 Realtek 8111CP PCIe GbE
	RS-232	2 x DB-9
	Display	1 x VGA
	Resolution	VGA: Up to 1900 x 1200 @ 60Hz
	Audio	1 x Line-out
	Other	1 x eSATA
	Wireless	1 x 802.11b/g/n (optional)
Expansions	PCIe Mini	1 x Full size (reserved for Wi-Fi module)
Power	Power Input	DC Jack: 12V DC
	Power Consumption	12V@1.28A (Intel® Atom™ N270 with 1GB DDR2 memory)
Reliability	Mounting	Din-rail, VESA 75, Wall mount
	Operating Temperature	-10°C ~50°C with air flow (CF), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operation Vibration	Meet MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	645g/1.8Kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® Windows® XP Embedded Microsoft® Windows® CE 6.0

Dimensions *(Unit: mm)*



Packing List

1 x 36W 12V Power adapter (Part No. : 63000-FSP036RAB608-RS)	
1 x Wall mount kit (Part No. : AFLWK-12)	
1 x Screw set	1 x Power cord
4 x Foot pad with screws	1 x Driver & manual CD
1 x One Key Recovery CD	1 x 2dbi Wireless antenna

AFLWK-12

Ordering Information

Part No.	Description
IBX-530B-R30/N270/1GB	Fanless embedded system Intel® Atom™ Processor N270 1.6GHz CPU, Intel® 945GSE, built-in 1GB DDR2 memory, 12VDC in, with 36W adapter, with ERP and PSE certificates, black, RoHS
IBX-530W-R30/N270/1GB	Fanless embedded system Intel® Atom™ Processor N270 1.6GHz CPU, Intel® 945GSE, built-in 1GB DDR2 memory, built-in 802.11b/g/n wireless, 12VDC in, with 36W adapter, with ERP and PSE certificates, black, RoHS
IBXCF-530-945GSE-CE060	WINCE 6.0 OS Image for IBX-530-945GSE, with 128MB CompactFlash® memory card, RoHS
IBXCF-530-945GSE-XPE	Windows® XPE OS image, for IBX-530-945GSE, with 1GB CompactFlash® memory card, RoHS

SBC Embedded System

Model Name		ECN-360A-HM65	ECN-360A-D2550	ECW-281B-D2550	ECW-281B-D525 (ECW-281B2-D525)	ECW-281B-R21/N270 (ECW-281B2-R21/N270)	ECN-581A-QM57
Chassis	Color	Black	Black	Black	Black	Black	Cool Gray+Blue
	Dimensions (W x D x H)	255 x 130 x 63 mm	255 x 130 x 63 mm	229 x 132 x 64 mm	229 x 132 x 64 mm	229 x 132 x 64 mm	180 x 138 x 50 mm
	System Fan	Fanless	Fanless	Fanless	N/A	N/A	2 x 4cm
	Chassis Construction	SECC	SECC	Aluminum Alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Heavy duty metal
Motherboard	Motherboard Model	NANO-HM651-847E	NANO-CV-D25502	WAFER-CV-D25501	WAFER-PV-D5252	WAFER-945GSE	NANO-QM57A
	Processor CPU	Intel® Celeron® dual core 847E 1.1GHz	Intel® dual core Atom™ D2550 1.86GHz	Intel® Atom™ D2550 Dual core 1.86GHz / 1MB L2 cache	Intel® Atom™ D525 Processor 1.8GHz/1MB L2 cache	Intel® Atom™ N270 1.6GHz/512KB L2 Cache	Intel® Core™ i5-520M 2.4GHz/4MB L2 cache
	Chipset	Intel® HM65	Intel® NM10	Intel® NM10	ICH8M	Intel® 945GSE + ICH7M	Intel® QM57
	System Memory	2 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 8GB) Pre-installed DDR3 4GB memory	1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 4GB) Pre-installed DDR3 2GB memory	2GB DDR3 204-pin SO-DIMM memory pre-installed	1 GB DDR3 204-pin SO-DIMM memory pre-installed	1 GB DDR2 200-pin SO-DIMM memory pre-installed	2 GB DDR3 204-pin SO-DIMM memory pre-installed
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Space	1 x 2.5" SATA HDD Space	1 x 2.5" SATA HDD Space
	CompactFlash®	N/A	N/A	N/A	1	1	N/A
I/O interfaces	PS2 (KB/MS)	N/A	N/A	N/A	N/A	N/A	N/A
	USB 3.0	2	0	N/A	N/A	N/A	N/A
	USB 2.0	2	6	4	4	4	4
	Ethernet	2 x Realtek RTL8111E PCIe GbE controller	2 x Realtek RTL8111E PCIe GbE controller	2 x Realtek RTL8111E PCIe GbE controller	2 x Realtek 8111E PCIe GbE	2 x Realtek 8111CP PCIe GbE	1 x Intel® 82577LM PCIe PHY with AMT 6.0 support
	RS-232	2 x DB-9	3 x DB-9	3 x DB-9	6 (5)	6 (5)	2
	RS-422/485	1 x DB-9	1 x DB-9	1 x DB-9	N/A	N/A	N/A
	Display	1 x VGA, 2 x HDMI	2 x VGA	1 x VGA	1 (2) x VGA	1 (2) x VGA	1 x DVI-I (DVI-D + VGA) 1 x DVI-D
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz	VGA: Up to 1920 x 1200 @ 60Hz	VGA: Up to 1920 x 1200 @ 60Hz	VGA: Up to 2048 x 1536 @ 60Hz (1024x768 @ 60Mhz)	VGA: Up to 1920 x 1200 @ 60Hz (1024x768 @ 60Mhz)	DVI-I: Up to 1920 x 1200 @ 60Hz DVI-D: Up to 2048 x 1536 @ 75Hz
	Audio	1 x Line-out	1 x Line-out	1 x Line-out	1 x Speaker out	1 x Speaker out	1 x Mic-in, 1 x Line-out, 1 x Line-in
	Other	8-bit digital I/O (4-bit input, 4-bit output)	N/A	8-bit digital I/O (4-bit input, 4-bit output)	N/A	N/A	N/A
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n	1 x 802.11b/g/n	1 x 802.11b/g/n
	Expansions	1 x Full size (reserved for Wi-Fi)	1 x Full size (support mSATA) 1 x Half size	1 x Full size (support mSATA) 1 x Half size	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot (reserved for Wi-Fi)
Power	Power Input	9~36V DC Power 1: DC Jack Power 2: Terminal block	9~ 28V DC Power 1: DC Jack Power 2: Terminal block	DC Jack: 12V DC 3-pin terminal block: 9 ~ 36VDC (WD model)	DC Jack: 12VDC in 9-36V (WD Model)	DC Jack: 12VDC in 9-36V (WD Model)	DC Jack: 12V DC in
	Power Consumption	12V@3.01A (Intel® Celeron® single core 827E 1.4GHz with 4GB DDR3 memory)	12V@1.59A (Intel® Atom™ D2550 with 2GB DDR3 memory)	12V@1.53A (Intel® Atom™ D2550 with 2GB DDR3 memory)	12V@1.79A (Intel® Atom™ D525 1.8GHz with DDR3 1GB)	12V@1.25A (Intel® Atom™ N270 1.6GHz with DDR2 1GB)	12V@4.18A (Intel® Core™ i5-520M 2.66G, DDR3 2GB)
Reliability	Mounting	Wall mount, VESA 100	Wall mount, VESA 100	DIN-rail, VESA 100, wall mount	DIN mount, VESA 75 mount, wall mount	DIN mount, VESA 75 mount, wall mount	Desktop, wall mount, VESA mount
	Operating Temperature	-10°C~60°C with air flow (SSD),5% ~ 95%, non-condensing	-10°C~60°C with air flow (SSD),5% ~ 95%, non-condensing	-10°C~50°C with air flow (SSD),5% ~ 95%, non-condensing	-20°C ~ 65°C with CompactFlash®/SSD -10°C ~ 50°C with HDD	-10°C ~ 70°C with CompactFlash®/SSD -10°C ~ 50°C with HDD	-10°C ~ 50°C with SSD
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis					
	Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)			* MIL-STD-810F 514.5C-1, MIL-STD-810F 514.5C-2		MIL-STD-810F 514.5C-1
	Weight (Net/Gross)	2.2Kg / 3Kg	2.2Kg / 3Kg	2.1Kg / 3.9 Kg	2.1kg/3.9kg	2.1kg/3.9kg	1.1kg/2kg

*Systems with hard drive meet MIL-STD-810F 514.5C-1 specifications. SSD/CF systems meet MIL-STD-810F 514.5C-2 specifications.

ECN-360A-HM65 D2550

Fanless Embedded System with Intel® Solution

New

Features

- On-board CPU
  - » ECN-360A-HM65: Intel® Celeron® 847E dual core 1.1 GHz
  - » ECN-360A-D2550: Intel® Atom™ D2550 dual core 1.86 GHz
- Rich video output solution
  - » ECN-360A-HM65: 2 x HDMI + 1 x VGA
  - » ECN-360A-D2550: 2 x VGA
- Ruggedized embedded computer
  - » Support -10°C~60°C (w/ SSD, air flow)

Fanless | PCIe Mini Expansion | USB 3.0 | Dual GbE | Dual Display

Specifications

Model Name		ECN-360A-HM65	ECN-360A-D2550
Chassis	Color	Black	Black
	Dimensions (WxDxH)	255 x 130 x 63 mm	255 x 130 x 63 mm
	System Fan	Fanless	Fanless
	Chassis Construction	SECC	SECC
Motherboard	Motherboard Model	NANO-HM651-847E	NANO-CV-D25502
	Processor CPU	Intel® Celeron® dual core 847E 1.1GHz	Intel® dual core Atom™ D2550 1.86GHz
	Chipset	Intel® HM65	Intel® NM10
	System Memory	2 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 8GB) Pre-installed DDR3 4GB memory	1 x 204-pin DDR3 SDRAM SO-DIMM (System Max: 4GB) Pre-installed DDR3 2GB memory
Storage	Hard Drive	1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay
I/O interfaces	USB 3.0	2	0
	USB 2.0	2	6
	Ethernet	2 x Realtek RTL8111E PCIe GbE controller	2 x Realtek RTL8111E PCIe GbE controller
	RS-232	2 x DB-9	3 x DB-9
	RS-422/485	1 x DB-9	1 x DB-9
	Display	1 x VGA, 2 x HDMI	2 x VGA
	Resolution	VGA: Up to 2048 x 1536 @ 75Hz HDMI: Up to 1920 x 1200 @ 60Hz	VGA: Up to 1920 x 1200 @ 60Hz
	Audio	1 x Line-out	1 x Line-out
	Other	8-bit digital I/O (4-bit input, 4-bit output)	N/A
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11b/g/n (optional)
	Expansions	1 x Full size (reserved for Wi-Fi)	1 x Full size (support mSATA) 1 x Half size
Power	Power Input	9~36V DC Power 1: DC Jack, Power 2: Terminal block	9~ 28V DC Power 1: DC Jack, Power 2: Terminal block
	Power Consumption	12V@3.01A (Intel® Celeron® single core 827E 1.4GHz with 4GB DDR3 memory)	12V@1.59A (Intel® Atom™ D2550 with 2GB DDR3 memory)
Reliability	Mounting	Wall mount, VESA 100	Wall mount, VESA 100
	Operating Temperature	-10°C~60°C with air flow (SSD),5% ~ 95%, non-condensing	-10°C~60°C with air flow (SSD),5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)	MIL-STD-810F 514.5C-2 (SSD)
	Weight (Net/Gross)	2.2Kg / 3Kg	2.2Kg / 3Kg

Friendly to Use

PCIe Mini Expansion

Easy for installation

- Hinge Design for rear Cover
- Easy assembly of storage/memory/PCIe Mini card

Wide range of DC power input

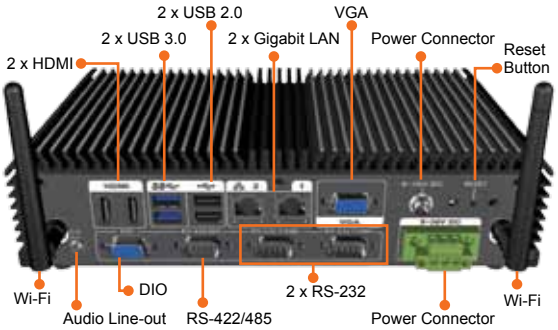
- ECN-360A-HM65: 9~36V DC
- ECN-360A-D2550: 9~28V DC

Fully Integrated I/O

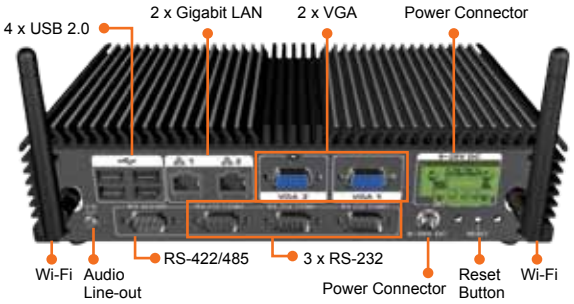
●ECN-360A-HM65 Front I/O

●ECN-360A-D2550 Front I/O

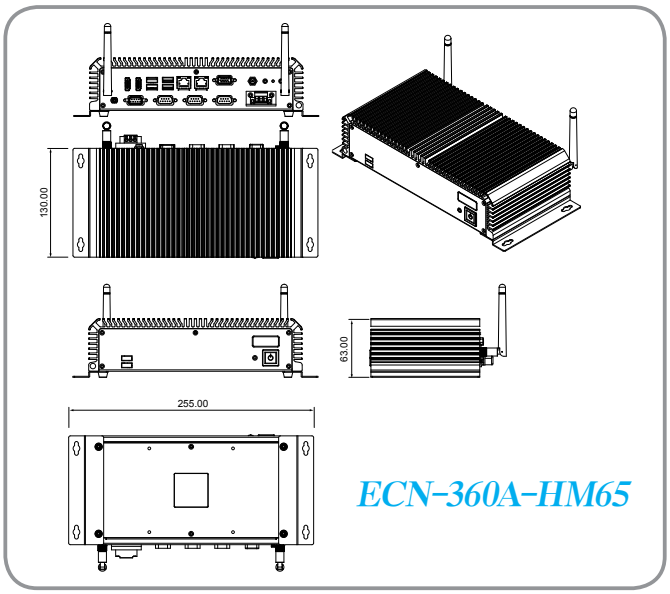
●ECN-360A-HM65 Rear I/O

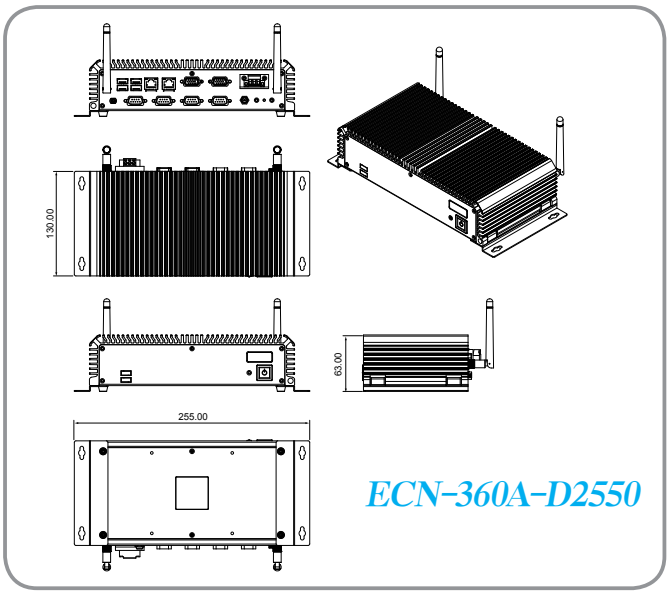


●ECN-360A-D2550 Rear I/O



Dimensions *(Unit: mm)*





Ordering Information

Part No.	Description
ECN-360A-HM65/4G-R10	Embedded system with NANO-HM651-847E,Intel® Celeron® 847E dual core 1.1 GHz, with 2 x HDMI, 1 x VGA, 2 x RS-232, 1 x RS-422/485, 4GB DDR3 SO-DIMM pre-installed, dual Realtek LAN, DIO, 9~36V DC , R10, RoHS
ECN-360AW-HM65/4G-R10	Embedded system with NANO-HM651-847E,Intel® Celeron® 847E dual core 1.1 GHz, with 2 x HDMI, 1 x VGA, 2 x RS-232, 1 x RS-422/485, 4GB DDR3 SO-DIMM pre-installed, dual Realtek LAN, DIO, 802.11b/g/n wireless, 9~36V DC ,R10, RoHS
ECN-360A-D2550/2G-R10	Embedded system with NANO-CV-D25502,Intel® Atom™ D2550 dual core 1.86 GHz, with 2 x VGA, 3 x RS-232, 1 x RS-422/485, 2GB DDR3 SO-DIMM pre-installed, dual Realtek LAN, 9~28V DC , R10, RoHS
ECN-360AW-D2550/2G-R10	Embedded system with NANO-CV-D25502,Intel® Atom™ D2550 dual core 1.86 GHz, with 2 x VGA, 3 x RS-232, 1 x RS-422/485, 2GB DDR3 SO-DIMM pre-installed, dual Realtek LAN, 802.11b/g/n wireless, 9~28V DC , R10, RoHS

Packing List

1 x QIG	1 x One Key Recovery CD
2 x wall mount bracket	1 x driver CD
1 x power adapter	1 x power cord
1 x screw set	1 x wireless antenna (for wirelss model)

ECW-281B/D2550

Fanless Embedded System with Intel® Atom™ Dual-core D2550 CPU

New

Features

- Fanless system with Intel® Atom™ D2550 Dual core 1.86GHz CPU
- Supports 4 COM ports (3 x RS-232 , 1 x RS-422/485)
- 2 PCIe Mini slots (1 x full size , 1 x half size)
- 12V DC and 9~36V DC model available
- 2T2R 802.11 b/g/n wireless model available

One Key Recovery

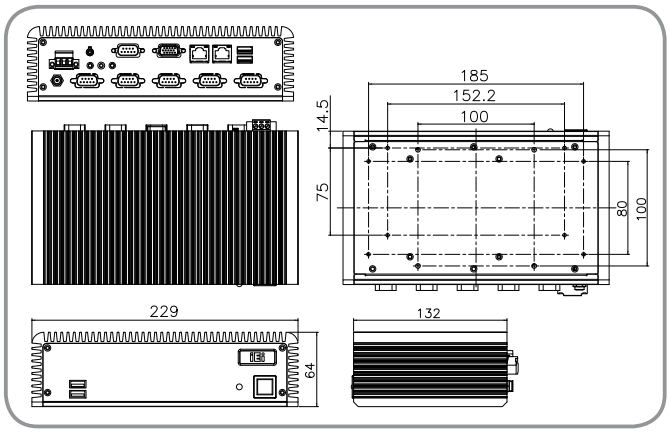
Fanless

mSATA

Specifications

Model Name		ECW-281B-D2550
Chassis	Color	Black
	Dimensions (WxDxH)	229 x 132 x 64 mm
	System Fan	Fanless
	Chassis Construction	Aluminum Alloy with heavy duty metal
Motherboard	Motherboard Model	WAFER-CV-D25501
	Processor	Intel® Atom™ D2550 Dual core 1.86GHz / 1MB L2 cache
	Chipset	Intel® NM10
	System Memory	2GB DDR3 204-pin SO-DIMM memory pre-installed
Storage	Hard Drive	1 x 2.5" SATA HDD Bay
I/O interfaces	USB 2.0	4
	Ethernet	2 x Realtek RTL8111E PCIe GbE controller
	RS-232	3 x DB-9
	RS-422/485	1 x DB-9
	Display	1 x VGA
	Resolution	VGA: Up to 1920 x 1200 @ 60Hz
	Audio	1 x Line-out
	Other	8-bit digital I/O (4-bit input, 4-bit output)
	Wireless	1 x 802.11b/g/n (optional)
	Expansions	1x Full size (support mSATA) 1 x Half size
Power	Power Input	DC Jack : 12V DC 3 pin terminal block: 9~ 36VDC (WD model)
	Power Consumption	12V@1.53A (Intel® Atom™ D2550 with 2GB DDR3 memory)
Reliability	Mounting	DIN-rail, VESA 100, wall mount
	Operating Temperature	-10°C~50°C with air flow (SSD),5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)
	Weight (Net/Gross)	2.1Kg / 3.9 Kg

Dimensions *(Unit: mm)*



Packing List

1 x QIG	1 x Driver & user manual CD
1 x Screw set	1 x 12V 60W power adapter (optional for WD model) (Part No. : 63000-FSP060DBAB1552-RS)
1 x DIN mount	1 x Power cord (optional for WD model)
1 x Hard drive thermal pad	1 x Wireless antenna (for wireless model)
2 x Wall mount bracket	1 x One Key Recovery CD

Ordering Information

Part No.		Description
12V DC input	ECW-281B-R10/ D2550/2GB	Fanless embedded system with WAFER-CV-D25501, with dual core Intel® Atom™ D2550 1.86G, 4 serial ports, with 2GB DDR3 pre-installed SO-DIMM memory, 12VDC in, 60W power adapter, black, RoHS
	ECW-281BW-R10/ D2550/2GB	Fanless embedded system with WAFER-CV-D25501, with dual core Intel® Atom™ D2550 1.86G, built-in 802.11 b/g/n 2T2R wirless module, 4 serial ports,with 2GB DDR3 pre-installed SO-DIMM memory, 12VDC in, 60W power adapter, black, RoHS
9~36V DC input	ECW-281BWD-R10/ D2550/2GB	Fanless embedded system with WAFER-CV-D25501, with dual core Intel® Atom™ D2550 1.86G, 4 serial ports, with 2GB DDR3 pre-installed SO-DIMM memory, 9~36VDC in, 60W power adapter, black, RoHS
	ECW-281BWDW-R10/ D2550/2GB	Fanless embedded system with WAFER-CV-D25501, with dual core Intel® Atom™ D2550 1.86G, built-in 802.11 b/g/n 2T2R wirless module, 4 serial ports, with 2GB DDR3 pre-installed SO-DIMM memory, 9~36VDC in, 60W power adapter, black, RoHS

ECW-281B/B2 Series

Fanless Embedded System with Intel® Atom™ Dual-core D525/N270 CPU

Features

- Fanless system with
  - » 1.8 GHz Intel® Atom™ D525 dual-core CPU
  - » 1.6 GHz Intel® Atom™ N270 CPU
- Supports four USB 2.0 ports and six COM ports
- Dual GbE LAN ideal for high-speed network applications
- Supports CompactFlash®, 2.5" SATA HDD and SSD storage devices
- 12 VDC and 9 VDC - 36 VDC power input models available
- Supports dual VGA display (B2 model only)

Specifications

-20°C~+70°C

Model Name	ECW-281B-D525 (ECW-281B2-D525)	ECW-281B-N270 (ECW-281B2-N270)	ECW-281B-N270-WT
Platform	Intel®		
Color	Black		
Dimensions (WxDxH)	229 x 132 x 64 mm		
Chassis Construction	Aluminum alloy with heavy duty metal		
Motherboard Model	WAFER-PV-D5252	WAFER-945GSE-N270	WAFER-945GSE-N270W2
Processor	Intel® Atom™ D525 1.8GHz/1MB L2 cache	Intel® Atom™ N270 1.6GHz/512KB L2 cache	
Chipset	ICH8M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
System Memory	1 x 204-pin 1GB DDR3 SO-DIMM (2GB for option)	1 x 200-pin 1GB DDR2 SO-DIMM (2GB for option)	1 x 200-pin 1GB DDR2 S-ODIMM (2GB for option)
Hard Drive	1 x 2.5" SATA HDD space		
CompactFlash®	1	1	1
USB 2.0	4	4	4
Ethernet	2 x Realtek RTL8111E PCIe GbE	2 x Realtek RTL8111E PCIe GbE	2 x Realtek RTL8111E PCIe GbE
RS-232	6 x RS-232 ports for ECW-281B-D525 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-D525	6 x RS-232 ports for ECW-281B-N270 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-N270	6 x RS-232 ports for ECW-281B-N270 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-N270
Display	1 (2) x VGA	1 (2) x VGA	1 x VGA
Resolution	VGA: Up to 2048 x 1536 @ 60Hz (VGA: Up to 1024x768 @ 60Mhz)	VGA: Up to 1920 x 1200 @ 60Hz (VGA: Up to 1024x768 @ 60Mhz)	VGA: Up to 1920 x 1200 @ 60Hz
Audio	1 x Speaker out		
Wireless	1 x 802.11b/g/n	1 x 802.11b/g/n	N/A
Expansions	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot
Power Consumption	12V@1.79A (Intel® Atom™ D525 1.8GHz with DDR3 1GB)	12V@1.25A (Intel® Atom™ N270 1.6G with 1GB DDR2)	12V@1.25A (Intel® Atom™ N270 1.6G with 1GB DDR2)
Power input	12VDC in 9-36V (WD Model)	12VDC in 9-36V (WD Model)	12VDC in
Mounting	DIN mount, VESA 75 mount, wall mount		
Operating Temperature	-20°C ~ 65°C with CF/SSD -10°C ~ 50°C with HDD	-10°C ~ 60°C with CF/SSD -10°C ~ 50°C with HDD	-20°C ~ 70°C with CF/SSD
Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis		
Operating Vibration	* MIL-STD-810F 514.5C-1 MIL-STD-810F 514.5C-2	MIL-STD-810F 514.5C-2	MIL-STD-810F 514.5C-2
Weight (Net/Gross)	2.1kg/3.9kg		

*Systems with hard drive meet MIL-STD-810F 514.5C-1 specifications. SSD/CF systems meet MIL-STD-810F 514.5C-2 specifications.

Storage & Expansions

1 x 2.5" SATA hard drive

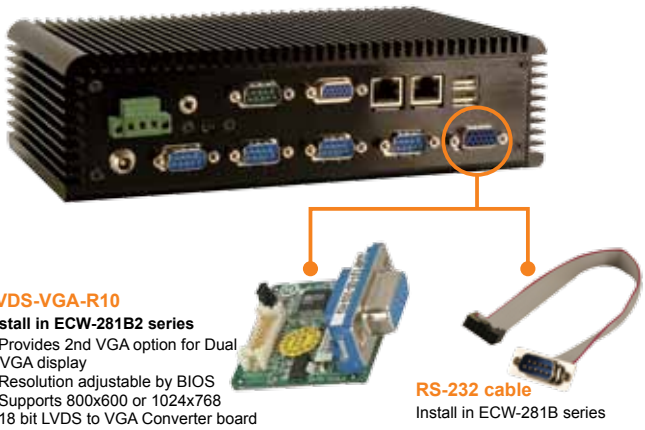
SATA DOM
Only with special power cable

1 x CompactFlash® slot

1 x PCIe Mini card
Models with built-in wireless would be occupied

Dual Display

The models of the ECW-281B series, either with Intel® Atom™ N270 single-core processor or D525 dual-core processor, both support dual VGA display through the optional LVDS to VGA converter module. The first VGA output signal comes from the on-board chipset and supports resolutions up to 2048x1536 (D525), while the second display output is made through the LVDS to VGA converter board (LVDS-VGA-R10) through the LVDS interface and supports resolutions up to 1024x768.

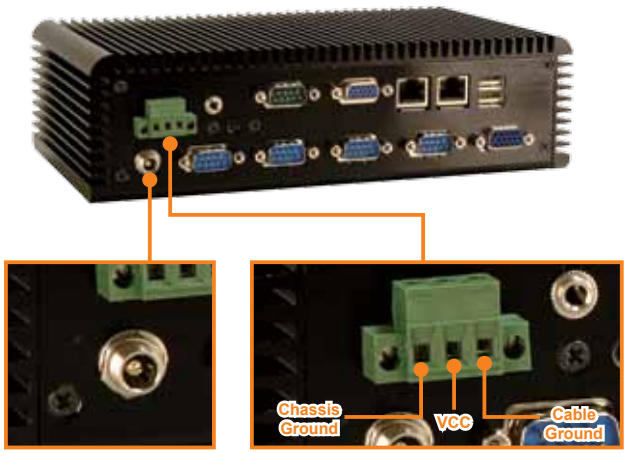


LVDS-VGA-R10
Install in ECW-281B2 series
» Provides 2nd VGA option for Dual VGA display
» Resolution adjustable by BIOS
» Supports 800x600 or 1024x768
» 18 bit LVDS to VGA Converter board

RS-232 cable
Install in ECW-281B series

Extended Voltage Input

The ECW-281B rear panel has two types of power input connectors which support either single 12 V DC input or 9~36 VDC input depending on the power module installed in the system.



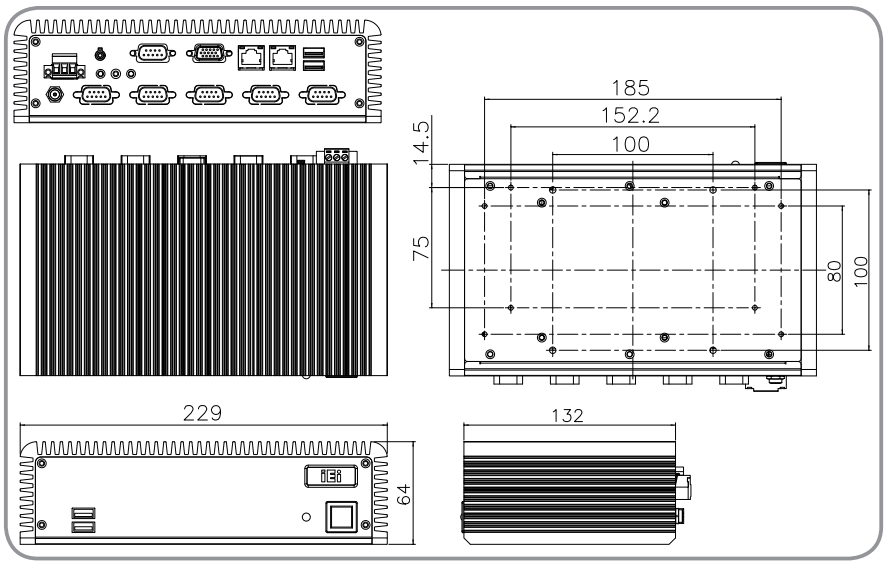
2 Pin DC Jack with Lock

3 Pin Terminal Block

IDD-936260
» Install in 9~36V DC in model (ECW-281B/B2WD series)
» Input range: 9-36VDC
» Output:
12 V @ 3 A (Max.)
5 V@ 10 A (Max.)
5 VSB @ 0.5 A (Max.)

IDD-12250
» Install in 12V DC in model (ECW-281B/B2-N270 series)
» Input range: 12VDC
» Output:
12 V @ 5 A (Pass thr.)
5 V @ 10 A (Max.)
5 VSB @ 0.5 A (Max.)

Dimensions (Unit: mm)



Packing List

1 x QIG
1 x Screw set
1 x DIN mount
1 x Hard drive thermal pad
2 x Wall mount bracket
1 x Driver & user manual CD
1 x 12V 60W power adapter (optional for WD model) (Part No. : 63000-FSP060DBAB1552-RS)
1 x Power cord (optional for WD model)
1 x Wireless antenna (for wireless model)
1 x One Key Recovery CD

DK-84MB

Extended Temperature

The ECW-281B series with Intel® Atom™ N270 single-core processor is a fanless system which supports a wide range of temperatures from -20°C to 70°C. The ECW-281B series industrial computer is powerful and can meet customers' needs with its various add-on functions. The table below is a model selection guide for the ECW-281B series.

Spec Comparison Table

Model	ECW-281B	ECW-281B2	ECW-281BWD	ECW-281B2WD	ECW-281B-WT
Wireless model	ECW-281BW	ECW-281B2W	ECW-281BWDW	ECW-281B2WDW	N/A
Main board	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270W2
COM port	6	5	6	5	6
VGA display	1	2	1	2	1
Power input	12V DC in	12V DC in	9~36V DC in	9~36V DC in	12V DC in
Adapter	60W	60W	N/A	N/A	N/A

Ordering Information

D525	12VDC input	ECW-281B-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281BW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2W-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
	9~36VDC input	ECW-281BWD-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281BWDW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WD-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WDW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
N270	12VDC input -20°C~+70°C	ECW-281B-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281BW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 1GB DDR2 memory, 12VDC in, with 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2W-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 12VDC in, 60W adapter with ERP and PSE certificates, black, RoHS
		ECW-281B-WT-R30/N270/1GB	Extend temperature fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 12VDC in, w/o power adapter, -20°C ~ 70°C degree, black, RoHS
	9~36VDC input	ECW-281BWD-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281BWDW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WD-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WDW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		32205-003200-100-RS	Flat cable, RS-232/422/485, RS-422/485 cable, 2, 100mm, 28AWG, (A) D-SUB 9-pin male, (B) DU pont 2x7P P=2.0, female, IDIOT-PROOF, 32200-074600-RS substitute, hwalong, RoHS

Embedded OS

ECWCF-281B-D525-XPE	Windows XP Embedded OS image, for ECW-281B-D525, with 1GB CompactFlash® memory card, RoHS
ECWCF-281B-D525-CE060	Windows CE 6.0 OS image, for ECW-281B-D525, with 128MB CompactFlash® memory card, RoHS
ECWCF-281B-945GSE-XPE	Windows XP Embedded OS image, for ECW-281B-N270, with 1GB CompactFlash® memory card, RoHS
ECWCF-281B-945GSE-CE060	Windows CE 6.0 OS image, for ECW-281B-N270, with 128MB CompactFlash® memory card, RoHS

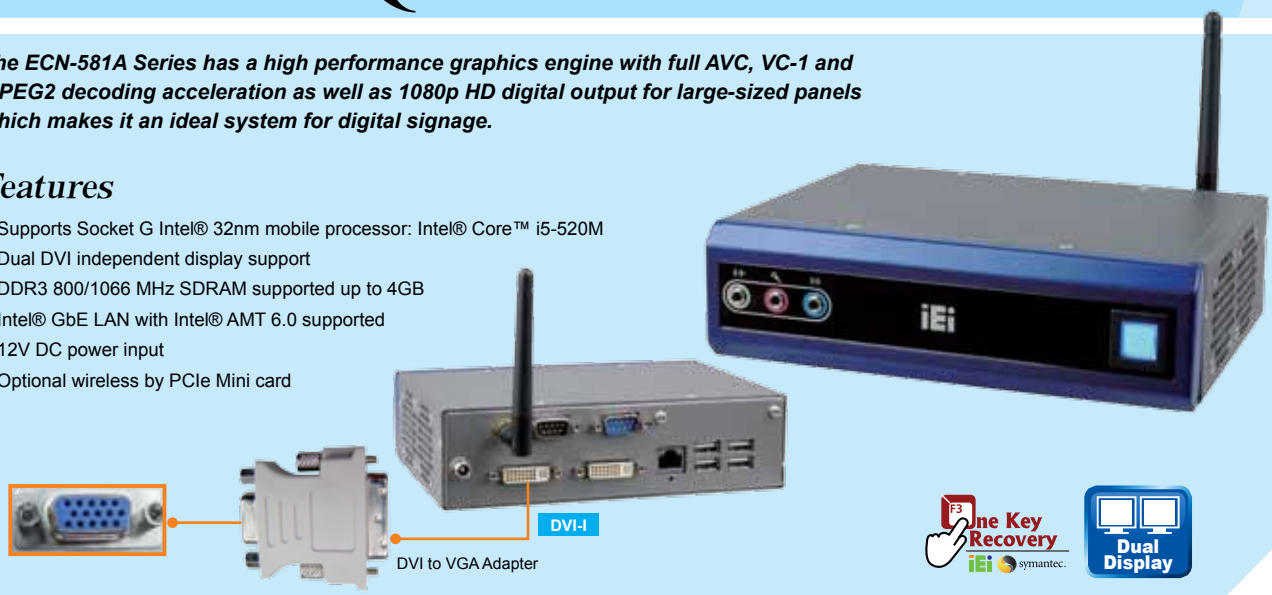
ECN-581A-QM57

Intel® Mobile Core™ i5 Dual DVI Display Multimedia Box

The ECN-581A Series has a high performance graphics engine with full AVC, VC-1 and MPEG2 decoding acceleration as well as 1080p HD digital output for large-sized panels which makes it an ideal system for digital signage.

Features

- Supports Socket G Intel® 32nm mobile processor: Intel® Core™ i5-520M
- Dual DVI independent display support
- DDR3 800/1066 MHz SDRAM supported up to 4GB
- Intel® GbE LAN with Intel® AMT 6.0 supported
- 12V DC power input
- Optional wireless by PCIe Mini card



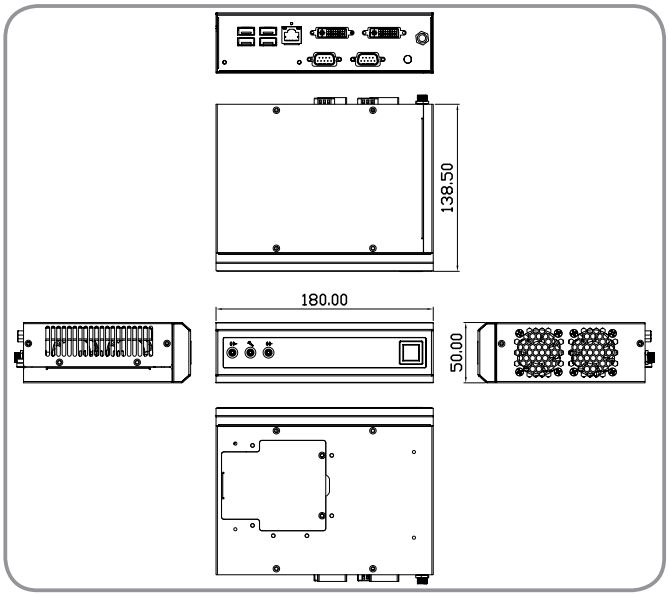
Specifications

Model Name	ECN-581A-QM57
SBC	NANO-QM57A
Processor	Intel® Core™ i5-520M
Chipset	Intel® Mobile QM57
System Memory	Pre-installed one 2 GB DDR3 SDRAM SO-DIMM (max: 4GB)
Ethernet	One Intel® 82577 PCIe LAN controller (supports Intel® AMT 6.0)
Display	1 x DVI-D (1920x1200) 1 x DVI-I (supports VGA by DVI to VGA adapter)
USB 2.0	4
Serial Port	2 x RS-232
Audio	1 x Mic-in, 1 x Line-out, 1 x Line-in (front panel)
Storage	Supports one 2.5" SATA HDD
Expansions	1 x PCIe Mini card slot, reserved for Wi-Fi
Power Input	DC Jack: 12 V DC in
Power Consumption	12V@4.18A (Intel® Core™ i5-520M 2.66G, DDR3 2GB)
Operating Temperature	-10°C ~ 50°C (with HDD) with air flow*
Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis (SSD)
Operating Vibration	MIL-STD-810F 514.5C-2 (SSD)
Weight (Net/Gross)	1.1 kg/2 kg
Dimensions (WxDxH)	180 mm x 138 mm x 50 mm
Mounting	Desktop, wall mont

Intel® AMT 6.0

The ECN-581A-QM57 is integrated with an Intel® QM57 Express Chipset that supports Intel® Active Management Technology for remote management. The Intel® AMT allows IT personnel to better monitor and protect networked computing assets. Benefits include enhanced asset management, fewer desk side visits and downtime reduction.

Dimensions *(Unit: mm)*



Packing List

1 x QIG	1 x Screw set
2 x Wall mount bracket	1 x Driver CD
1 x 60W 12V power adapter (Part No.: 63000-FSP060DBAB1552-RS)	1 x Power cord
1 x 2dbi Wireless antenna (for wireless model only)	1 x One Key Recovery CD

Wall Mount bracket

Ordering Information

Part No.	Description
ECN-581A-R11/QM57-I5/2GB	Embedded system with NANO-QM57A, Intel® Core™ i5-520M Processor, 3M Cache, 2.40 GHz, with dual DVI display support, Intel® AMT6.0, with 2GB DDR3 memory, 12VDC, 60W power adapter with ERP and PSE certificates, Reflex Blue C + 8403C, RoHS
ECN-581AW-R11/QM57-I5/2GB	Embedded system with NANO-QM57A, Intel® Core™ i5-520M Processor, 3M Cache, 2.40 GHz, with dual DVI display support, Intel® AMT6.0, built-in 802.11b/g/n wireless, with 2GB DDR3 memory, 12VDC, 60W power adapter with ERP and PSE certificates, Reflex Blue C + 8403C, RoHS

Embedded Chassis Series

Model Name		EBC-3680	EBC-3220	EBC-3200	EBC-3100	EBC-3000	EBC-2102	EBC-2101	EBC-2100
Platform		Case Only	Case Only	Case Only	Case Only	Case Only	Case Only	Case Only	Case Only
Chassis	Color	Cool Gray	Black	Black	Black	Black	Cool Gray	Cool Gray	Cool Gray
	Dimensions (W x D x H)	200 x 337 x 272 mm	190 x 180 x 55 mm	260 x 180 x 55 mm	260 x 250 x 156 mm	280 x 230 x 88 mm	262 x 134 x 56 mm	262 x 134 x 56 mm	262 x 134 x 56 mm
	System Fan	1 x 12cm	1 x 4 cm	2 x 4cm	1 x 8cm	1 x 6cm	*1 x 4cm	*1 x 4cm	*1 x 4cm
	Chassis Construction	Aluminum	Heavy duty metal	Heavy duty metal	Heavy duty metal with plastic front panel	Heavy duty metal with plastic front panel	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
Motherboard	Motherboard Model	KINO-AQ870 KINO-AQ670 KINO-AH611 KINO-AH612 KINO-G410 KINO-CVR-D27002 KINO-PV-D4253/ D5253 KINO-945GSE KINO-945GSE3	KINO-DQM871 KINO-QM770 KINO-CV/D25501/ N26001 KINO-QM670 KINO-HM551 KINO-PVN-D4251/ D5251 KINO-PV-D4252/ D5252 KINO-945GSE2	KINO-DQM871 KINO-QM770 KINO-CV/D25501/ N26001 KINO-QM670 KINO-HM551 KINO-PVN-D4251/ D5251 KINO-PV-D4252/ D5252 KINO-945GSE2	KINO-AQ870 KINO-AQ670 KINO-AH611 KINO-AH612 KINO-G410 KINO-CVR-D27002 KINO-PV-D4253/ D5253 KINO-945GSE KINO-945GSE3	KINO-AQ870 KINO-AQ670 KINO-AH611 KINO-AH612 KINO-G410 KINO-CVR-D27002 KINO-PV-D4253/ D5253 KINO-945GSE KINO-945GSE3	NANO-PV-D5251 NANO-PV-D4251 NANO-PV-N4551	NANO-945GSE	NANO-LX
	M/B Size	Mini-ITX (170 x 170mm)	Mini-ITX (170 x 170 mm)	Mini-ITX (170 x 170mm)	Mini-ITX (170 x 170mm)	Mini-ITX (170 x 170mm)	EPIC (165 x 115mm)	EPIC (165 x 115mm)	EPIC (165 x 115mm)
Storage	Hard Drive	4 x 3.5" SATA HDD space	1 x 2.5" SATA HDD Bay	2 x 2.5" SATA HDD space	1 x 3.5" SATA HDD space	1 x 3.5" SATA HDD space	1 x 2.5" SATA HDD space	1 x 2.5" SATA HDD space	1 x 2.5" SATA HDD space
	CompactFlash®	N/A	N/A	refer to optional module	refer to SBC	refer to SBC	1	1	1
	SD Card	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	N/A	N/A	N/A
System Function	PS2 (KB/MS)	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	1	N/A	N/A
	USB 3.0	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	N/A	N/A	N/A
	USB 2.0	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	6	2	4
	Ethernet	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	2	2	1
	RS-232	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	4	1 + *2	1 + *2
	RS-232/422/485	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	N/A	N/A	N/A
	LPT	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	1	N/A	*1
	Display	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	1 x VGA	1 x VGA	1 x VGA
	Resolution	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	N/A	N/A
	Audio	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	3 x Audio jack	1 x AC-KIT08-R10	*3 x Audio jack
	Wireless	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	1 x 802.11b/g/n	*1 x 802.11b/g/n	N/A
	Video Capturing	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	N/A	N/A	N/A
	Mini-PCIe/PCI	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC	refer to SBC
	Expansions	*1 x low profile expansion slot	N/A	*1 x low profile expansion slot	1 x full high expansion slot	N/A	1 x PCI-104	1 x PCI-104	1 x PCI-104
Power	Power Input	90~264V AC	12V DC	12V DC in	90~264V AC	90~264V AC	12V DC in	12V DC in	12V DC in
	Power Supply	ACE-A130B	12V DC	12V DC in	ACE-A618A 180W ACE-A627A 270W	ACE-A618A 180W ACE-A627A 270W	12VDC in, AT mode only, w/60W power adapter	12VDC in, AT mode only, w/60W power adapter	12VDC in, AT mode only, w/60W power adapter
Reliability	Mounting	N/A	VESA 100 , wall mount	Desktop, wall mount	Desktop, wall mount	Desktop, wall mount	Desktop, wall mount	Desktop, wall mount	Desktop, wall mount
	Operating Temperature	0°C ~ 50°C	-10°C~50°C	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C
	Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis							
	Operating Vibration	MIL-STD-810F 514.5C-1							
	Weight (Net/ Gross)	1kg/3kg	1Kg/2Kg	1.1kg/2kg	2.5kg/3.9kg	2.5kg/3.9kg	1kg/3kg	1kg/3kg	1kg/3kg

* Optional items

** Systems with hard drive meet MIL-STD-810F 514.5C-1 specifications. SSD/CF systems meet MIL-STD-810F 514.5C-2 specifications.

EBC-3680 *Mini-ITX Chassis for Hot-swappable Drive Bay Application*

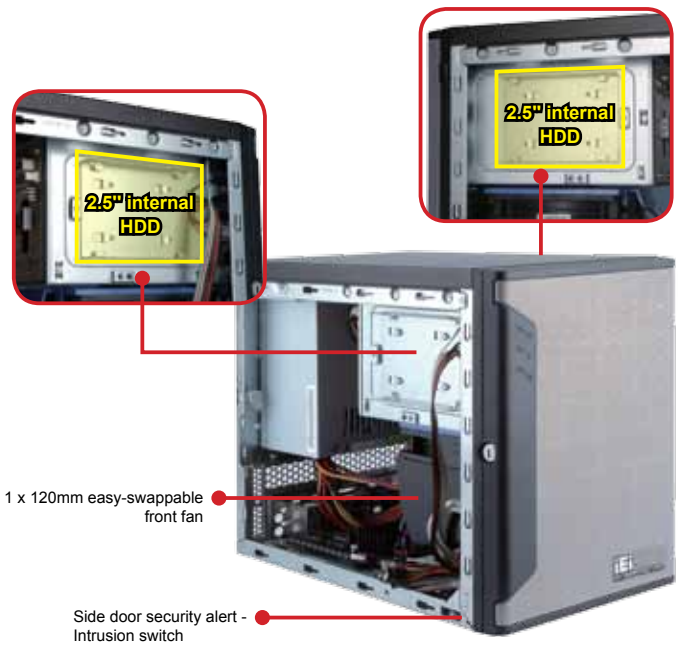
New

Features

- Small chassis for Mini-ITX form factor - Similar A4 size (front view)
- Excellent in thermal & acoustic simulation
- Uses low noise PWM fan
- 4 x Removable 3.5" HDD drive bay (Front side) and 2 x Internal 2.5" HDD drive bay
- Additional air duct
- Side door security alert - Intrusion switch

Specifications

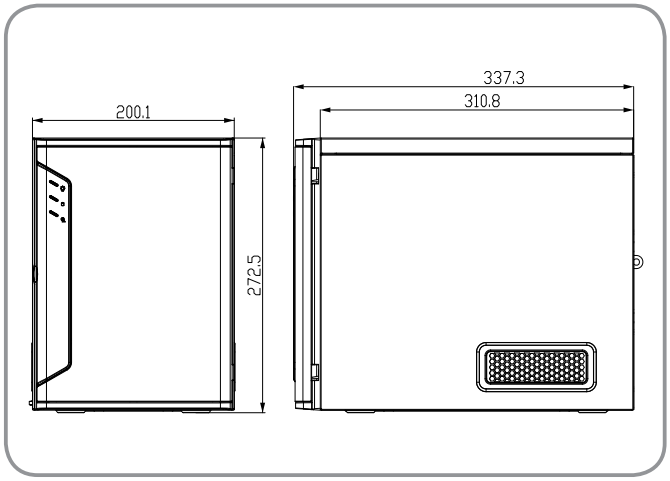
Model Name	EBC-3680
Platform	Case only
Color	Black
SBC Form Factor	Mini-ITX
Cooling Fan	1 x 120mm
Drive Bays	4 x 3.5" Removable 2 x 2.5" HDD
PSU	PS2
Power Input	90 ~ 264VAC
Switch/Controls	Power On/Off
	System Reset
Indicators	Power LED
	HDD Activity LED
	Error LED
Access I/O	2 x USB 2.0
Operating Temperature	0°C ~ 50°C
Dimensions (mm) (W x D x H)	200 x 337 x 272
Expansion Slot Type	Low profile type



Compatible SBC

Part No.	Expansion Type	Recomand CPU cooler
KINO-AQ870	PCIe x4	CF-1156A/B/C/D-RS
KINO-AQ670	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH611	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH612	PCI PCIe x1	CF-1156A/B/C/D-RS
KINO-G410	PCIe x16	CF-775A-RS
KINO-PV-D4253/D5253	PCI PCIe x1	Fanless
KINO-945GSE	PCI	Fanless
KINO-945GSE3	PCI	Fanless

Dimensions *(Unit: mm)*



Ordering Information

Part No.	Description
EBC-3680-R10	Mini-ITX embedded chassis, compatible two 2.5" HDD, 4 x 3.5" H/S HDD, w/o power, black, RoHS
ACE-A130B-R10	300W AC-DC PS/2 ATX power supply with ErP/PFC, 80 PLUS bronze certified

EBC-3220

Compact Embedded Chassis for IEI Single Voltage Mini-ITX SBC

New

Mini-ITX

Features

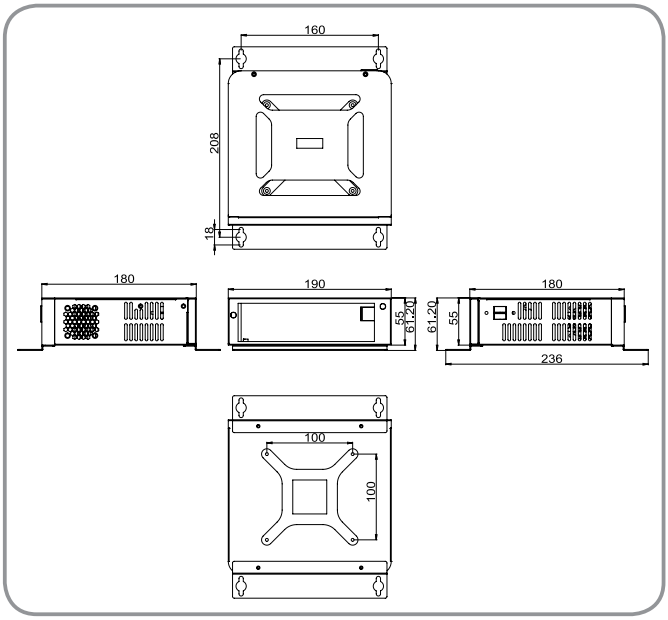
- Design for Mini-ITX SBC with single voltage input
- Space critical application
- One 2.5" hard drive capacity
- Cost-effective, RoHS compliant design

Specifications

Model Name	EBC-3220
SBC Form Factor	Mini-ITX (Single Voltage input)
Cooling Fan	1 x 4 cm
Storage	1 x 2.5" HDD Bracket
Buttons	Power switch
Color	Black
Dimensions (W x D x H)	190mm x 180mm x 55mm
Weight	1KG / 2KG
Operating temperature	-10°C ~ 50°C with air flow*
Mounting	Desktop, wall mount, VESA mount

*Ambient air speed pre IEC-68-2-2 standard

Dimensions (Unit: mm)



Compatible Mini-ITX SBC

Part No.	Expansion Type	Recomand CPU cooler
KINO-DQM871	PCIe x16	CF-989A-RS-R12
KINO-QM770	PCIe x16	CF-989A-RS-R12
KINO-CV/D25501/N26001	PCI	Fanless
KINO-QM670	PCIe x16	CF-989A-RS-R12
KINO-QM57A	PCIe x16	CF-989A-RS-R12
KINO-HM551	PCIe x16	CF-989A-RS-R11
KINO-PV-D5252	PCI or PCIe x1	Fanless
KINO-945GSE2	PCI	Fanless

Packing List

- 1 x QIG
- 1 x Wall mount bracket kit
- 1 x Screw set

Ordering Information

Part No.	Description
EBC-3220-R10	Mini-ITX embedded chassis, for DC input model only, with one 2.5" HDD, w/o power adapter, Black, RoHS
EBC-3220W-R10	Mini-ITX embedded chassis, for DC input model only, with one 2.5" HDD drive bay, 802.11b/g/n 2T2R wireless LAN, w/o power adapter, Black, R10, RoHS
63040-010060-050-RS	Adapter Power, FSP060-DBAE1, 90~264VAC, 60W, 1500mm, 12VDC, Din 4Pin/lock, CCL, RoHS
63000-FSP084DMBA1308-RS	Adapter Power, FSP084-DMBA1, 90~264VAC, 84W, 1800mm, 12VDC, Din 4Pin/lock, CCL, RoHS
32001-010800-100-RS	Dual port USB cable, 200mm, w/o bracket
19FR124010BL-000003-RS	Fan Module, L=200MM, 4cm, 3 pin, CCL, RoHS
EBC-3220-DH610-R10	Embedded chassis with KINO-DH610, support Intel® Core™ i7/i5/i3, Pentium®, Celeron® CPU, one 2.5" HDD drive bay, w/ 19V/6.32A 120W power adapter (support up to 65W CPU), Black, R10, RoHS
EBC-3220W-DH610-R10	Embedded chassis with KINO-DH610, support IIntel® Core™ i7/i5/i3, Pentium®, Celeron® CPU, one 2.5" HDD drive bay, 802.11b/g/n 2T2R wireless LAN, w/ 19V/6.32A 120W power adapter (support up to 65W CPU), Black, R10, RoHS
CPU-DT-i5-2500T	Intel® Core™ i5-2500T processor, LGA1155, quad core 2.3GHz, 6M cache, 45W, compatible with CF-1156D-RS CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156D-RS CPU cooler
CPU-DT-i3-2100T	Intel® Core™ i3-2100T processor, LGA1155, dual core 2.5GHz, 3M cache, 35W, compatible with CF-1156D-RS CPU cooler
CPU-DT-P-G620T	Intel® Pentium® G620T processor, LGA1155, dual core 2.2GHz, 3M cache, 35W, compatible with CF-1156D-RS CPU cooler
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156D-RS CPU cooler
CF-1156D-RS	LGA1155/LGA1156 cooler kit, 1U chassis compatible 65W

EBC-3200

Embedded Chassis for IEI Single Voltage Mini-ITX SBC

Mini-ITX

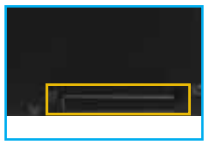
Features

- Designs for Mini-ITX SBC with single voltage input
- Flexible storage with CF or 2.5" HDD (optional)
- One PCI or PCIe expansion slot (optional)

Flexible design with five optional modules for storage and expansion slot

Flexible storage by optional modules

2 x internal 2.5" HDD (Default)



1 x Internal 2.5" HDD
1 x CF slot

1 x Expansion slot (PCI/PCIe)
1 x Internal 2.5" HDD

1 x Expansion slot (PCI/PCIe)
1 x CF slot

Specifications

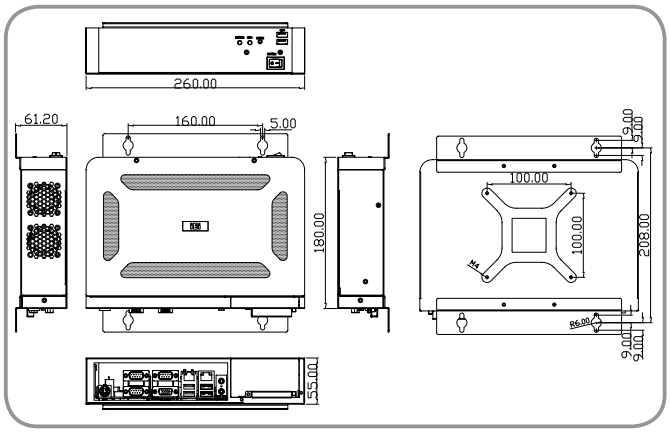
Model Name	EBC-3200
SBC Form Factor	Mini-ITX (Single Voltage input)
Cooling Fan	2 x 4cm
Storage	2 x 2.5" HDD (Default) or support by optional module
Indicators	Power, HDD LED
Buttons	Power switch, reset
Expansions	1 x Low Profile PCI/PCIe (support by optional modules) Max Dimensions: 147mm (L) x 10.5mm (D)
Color	Black
Dimensions (WxDxH)	260mm x 180mm x 55mm
Weight (Net/Gross)	1.1KG/2KG
Operating Temperature	-10°C ~ 50°C with air flow*
Mounting	Desktop, wall mount, VESA mount

(*Ambient air speed pre IEC-68-2-2 standard)

Optional Module

Part No.	Description
EBCKIT-01-R10/PCI-HDD	EBC-3200 optional module with 1 x PCI slot and 1 x 2.5" HDD, RoHS
EBCKIT-02-R10/PCIe-HDD	EBC-3200 optional module with 1 x PCIe x1 slot and 1 x 2.5" HDD, RoHS
EBCKIT-03-R10/PCI-CF	EBC-3200 optional module with 1 x PCI slot and 1 x CompactFlash® slot, RoHS
EBCKIT-04-R10/PCIe-CF	EBC-3200 optional module with 1 x PCIe x11 slot and 1 x CompactFlash® slot, RoHS
EBCKIT-05-R10/CF-HDD	EBC-3200 optional module with 1 x CompactFlash® slot and 1 x 2.5" HDD, RoHS
EBCKIT-06-R10/PCIe16-HDD	EBC-3200 optional module with 1 x PCIe x16 slot and 1 x 2.5" HDD, RoHS
EBCKIT-07-R10/PCIe16-CF	EBC-3200 optional module with 1 x PCIe x16 slot and 1 x CompactFlash® slot, RoHS

Dimensions *(Unit: mm)*



Compatible SBC

Part No.	Expansion Type	Recomand CPU cooler
KINO-DQM871	PCIe x16	CF-989A-RS-R12
KINO-QM770	PCIe x16	CF-989A-RS-R12
KINO-CV/D25501/N26001	PCI	Fanless
KINO-QM670	PCIe x16	CF-989A-RS-R12
KINO-QM57A	PCIe x16	CF-989A-RS-R12
KINO-HM551	PCIe x16	CF-989A-RS-R11
KINO-PV-D5252	PCI or PCIe x1	Fanless
KINO-945GSE2	PCI	Fanless

Packing List

1 x QIG	1 x Screw set
2 x Wall mount brackets	1 x Driver CD
1 x Power cord	1 x One Key Recovery CD

Ordering Information

Part No.	Description
EBC-3200-R10	Mini-ITX embedded chassis, compatible two 2.5" HDD, w/o power adapter, Black, RoHS
63000-FSP060DBAB1554-RS	Power Adapter, FSP060-DBAB1554, VAC:90V~264V, 12V/5A, 60W, DIN 4 PIN/WITH LOCK, 1800MM, FSP, RoHS
32000-000002-RS	European standard power cord, 1830mm
32000-000025-RS	American standard power cord, 1830mm

EBC-3100

Mini-ITX Chassis for High Power Consumption Applications

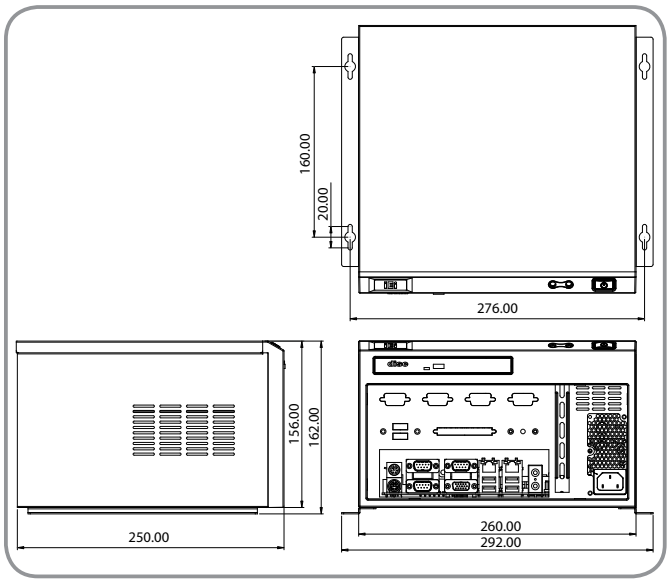
Features

- Designed for high performance applications, bundled with 270W high efficiency ATX power supply
- Front accessible I/O design
- Supports one expansion slot
- One 3.5” hard drive, one slim type optical drive capacity

Specifications

Model Name	EBC-3100
Platform	Case Only
Color	Black
Dimensions (WxDxH)	260 x 250 x 156 mm
System Fan	1 x 8cm
Chassis Construction	Heavy duty metal with plastic front panel
Motherboard Model	KINO-G45A, KINO-9652, KINO-780AM2, KINO-G410
M/B Size	Mini-ITX (170 x 170mm)
ODD	1 x 5.25" slim
Hard Drive	1 x 3.5" SATA HDD Space
Expansions	1 x Full high expansion slot Max Dimensions: 220mm (L) x 27mm (D)
Power Input	90~264V AC
Power Model	ACE-A618A 180W, ACE-A627A 270W
Mounting	Desktop, wall mount
Operating Temperature	0°C ~ 50°C
Weight (Net/Gross)	2.5kg/3.9kg

Dimensions *(Unit: mm)*



Compatible SBC

Part No.	Expansion Type	Recomand CPU cooler
KINO-AQ870	PCIe x4	CF-1156A/B/C/D-RS
KINO-AQ670	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH611	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH612	PCI PCIe x1	CF-1156A/B/C/D-RS
KINO-G410	PCIe x16	CF-775A-RS
KINO-PV-D4253/D5253	PCI PCIe x1	Fanless
KINO-945GSE	PCI	Fanless
KINO-945GSE3	PCI	Fanless

1U AC Input									
Products	Model No.	Watt AT/ATX PFC	Input Voltage	Output Current Range					Efficiency
				+3.3 V	+5 V	+12 V	-12 V	+5 Vsb	
	ACE-A627A	270W ATX PFC	90 ~ 264 VAC	16 A (0.5A min)	18A (0.5A min)	V1:16 A (1A) V2:10A (1A)	0.8A	2.5A	80%
	ACE-A618A	180W ATX PFC	90 ~ 264 VAC	14 A (0.3 A min)	16 A (0.3 A min)	14 A (1.5 A min)	0.5 A	2 A	68%

Packing List

1 x EBC-3100	1 x Wall mount kit	1 x Screw set	1 x SATA slim ODD cable
1 x Power cord	1 x One Key Recovery CD	1 x QIG	

Ordering Information

Part No.	Description
EBC-3100-R11/ACE-A627A	Mini-ITX embedded chassis, one 3.5" hard drive and one slim ODD bay, with ACE-A627A-RS-R11 270W ATX power supply, black, RoHS
EBC-3100-R11/ACE-A618A	Mini-ITX embedded chassis, one 3.5" hard drive and one slim ODD bay, with ACE-A618A-RS-R11 180W ATX power supply, black, RoHS

EBC-3000 *Mini-ITX Chassis for High Power Consumption Applications*

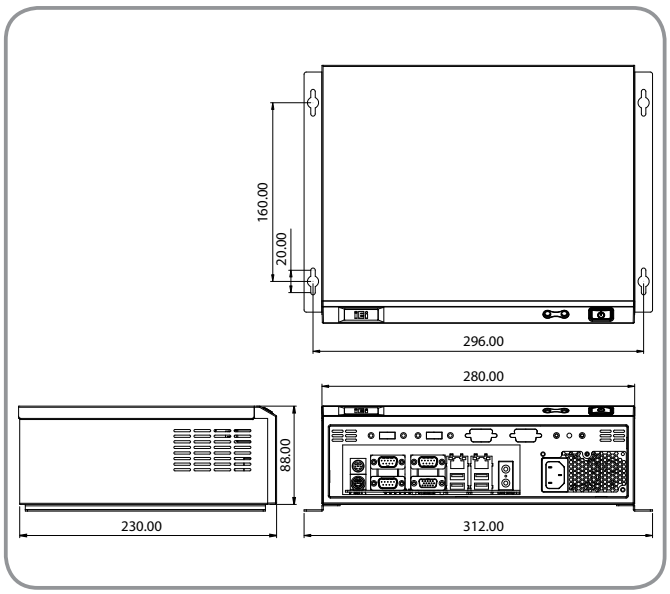
Features

- Designed for high performance applications, bundled with 270W high efficiency ATX power supply
- Front accessible I/O design
- One 3.5" hard drive capacity

Specifications

Model Name	EBC-3000
Platform	Case Only
Color	Black
Dimensions (WxDxH)	280 x 230 x 88mm
System Fan	1 x 6cm
Chassis Construction	Heavy duty metal with plastic front panel
Motherboard Model	KINO-G45A, KINO-9652, KINO-780AM2, KINO-G410
M/B Size	Mini-ITX (170 x 170mm)
Hard Drive	1 x 3.5" SATA HDD Space
Power Input	90~264V AC
Power Model	ACE-A618A 180W, ACE-A627A 270W
Mounting	Desktop, wall mount
Operating Temperature	0°C ~ 50°C
Weight (Net/Gross)	2.5kg/3.9kg

Dimensions *(Unit: mm)*



Compatible SBC

Part No.	Expansion Type	Recomand CPU cooler
KINO-AQ870	PCIe x4	CF-1156A/B/C/D-RS
KINO-AQ670	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH611	PCIe x16	CF-1156A/B/C/D-RS
KINO-AH612	PCI PCIe x1	CF-1156A/B/C/D-RS
KINO-G410	PCIe x16	CF-775A-RS
KINO-PV-D4253/D5253	PCI PCIe x1	Fanless
KINO-945GSE	PCI	Fanless
KINO-945GSE3	PCI	Fanless

1U AC Input

Products	Model No.	Watt AT/ATX PFC	Input Voltage	Output Current Range					Efficiency
				+3.3 V	+5 V	+12 V	-12 V	+5 Vsb	
	ACE-A627A	270W ATX PFC	90 ~ 264 VAC	16 A (0.5A min)	18A (0.5A min)	V1:16 A (1A) V2:10A (1A)	0.8A	2.5A	80%
	ACE-A618A	180W ATX PFC	90 ~ 264 VAC	14 A (0.3 A min)	16 A (0.3 A min)	14 A (1.5 A min)	0.5 A	2 A	68%

Packing List

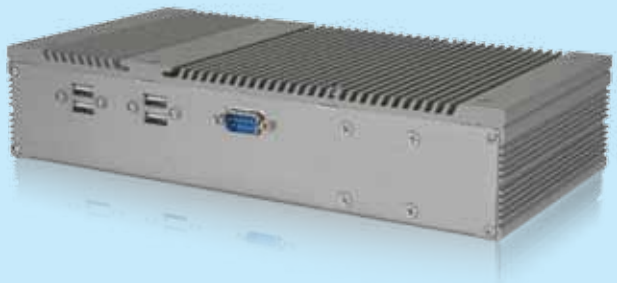
1 x EBC-3000	1 x Wall mount kit	1 x Screw set
1 x Power cord	1 x One Key Recovery CD	1 x QIG

Ordering Information

Part No.	Description
EBC-3000-R11/ACE-A627A	Mini-ITX embedded chassis, one 3.5" hard drive bay, with ACE-A627A-RS-R11 270W ATX power supply, black, RoHS
EBC-3000-R11/ACE-A618A	Mini-ITX embedded chassis, one 3.5" hard drive bay, with ACE-A618A-RS-R11 180W ATX power supply, black, RoHS

EBC-2102

Embedded Chassis for EPIC NANO Series



Features

- Fanless system with Intel® Atom™ D525 1.8GHz dual-core processor
- Complete I/O Interfaces, including dual GbE, four COM, six USB, LPT
- Single 12V DC power input supports AT/ATX mode
- DDR3 supports up to 4GB (D525/D425)

Specifications

Model Name		EBC-2102
Chassis	Color	Cool Gray
	Dimensions (WxDxH)	262 x 134 x 56 mm
	System Fan	1 x 4cm (Optional)
	Chassis Construction	Aluminum alloy with heavy duty metal
Motherboard	Motherboard Model	NANO-PV-D5251-R10, NANO-PV-D4251-R10, NANO-PV-N4551-R10
	M/B Size	EPIC (165mm x 115mm)
	Processor	refer to SBC
	Chipset	refer to SBC
	System Memory	D525/D425 memory supports up to DDR3 4GB, N455 memory supports up to DDR3 2GB
Storage	Hard Drive	1 x 2.5" SATA HDD bay
	CompactFlash®	1
System Function	USB 2.0	6
	Ethernet	Dual Realtek 8111E GbE
	RS-232	4
	LPT	1
	Display	1 x VGA
	Audio	3 x Audio jack (Line-in, Line-out, Mic-in)
	Wireless	1 x 802.11b/g/n (optional for wireless model)
	Expansions	1 x PCI-104, 1 x PCIe Mini card slot reserved for Wi-Fi module
Power	Power Input	12VDC in, AT mode (default)
	Power Consumption	2.21A @ 12V (Intel® Atom™ D525 with 2GB 1066MHz DDR3) 2.11A @ 12V (Intel® Atom™ D425 with 2GB 1066MHz DDR3) 2.00A @ 12V (Intel® Atom™ N455 with 2GB 1066MHz DDR3)
Reliability	Mounting	Desktop, wall mount
	Operating Temperature	-10°C ~ 50°C fanless, -10°C ~ 60°C with CPU fan or system fan
	Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis
	Operating Vibration	Meet MI-STD-810F 514.5C-1
	Weight (Net/Gross)	1kg

Packing List

- 1 x EBC-2102 Chassis
- 1 x 12V 60W power adapter (Part No.: 63000-FSP060DBAB1552-RS)
- 1 x Power cord
- 1 x Wall mount kit
- 1 x Screw set
- 1 x Utility CD/QIG
- 1 x One Key Recovery CD

Ordering Information

Part No.	Description
EBC-2102-R10	Embedded Chassis for NANO-D5251/D4251/N4551, compatible with 2.5" SATA/CFII hard drive, 4 x COM, 6 x USB, 1 x LPT, 60W power adapter silver, RoHS
EBC-2102W-R10	Embedded Chassis for NANO-D5251/D4251/N4551, compatible with 2.5" SATA/CFII hard drive, 4 x COM, 6 x USB. 1 x LPT, 802.11b/g/n wireless, 60W power adapter silver, RoHS
19100-000027-RS	4010 system Fan, +12V ball bearing
NANO-PV-D5251-R10	EPIC with Intel® Atom™ D525 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA 3Gb/s, RoHS
NANO-PV-D4251-R10	EPIC with Intel® Atom™ D425 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA 3Gb/s, RoHS
NANO-PV-N4551-R10	EPIC with Intel® Atom™ N455 1.66GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA 3Gb/s, RoHS

EBC-2100/2101

Embedded Chassis for EPIC NANO Series

EBC-2100

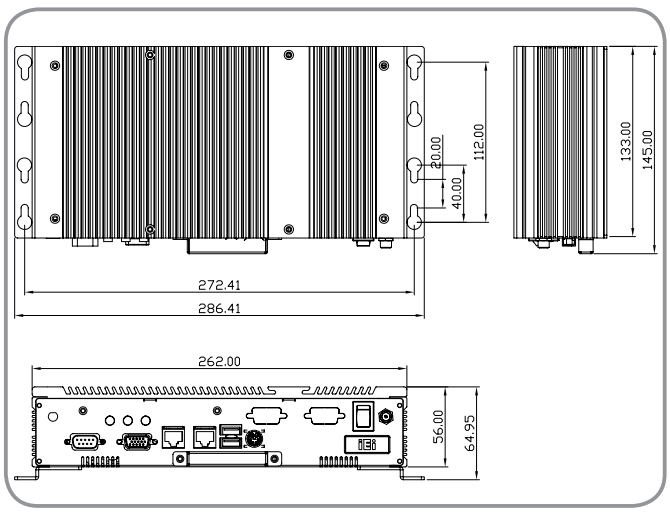
EBC-2101

Specifications

Model Name		EBC-2100	EBC-2101
Platform		Case Only	
Chassis	Color	Cool Gray	
	Dimensions (WxDxH)	262 x 134 x 56 mm	
	System FAN	*1 x 4cm	
	Chassis Construction	Aluminum alloy with heavy duty metal	
Motherboard	Motherboard Model	NANO-LX	NANO-945GSE
	M/B Size	EPIC (165 x 115mm)	
	Processor	refer to SBC	Intel® Atom™ N270 1.6GHz
	Chipset	refer to SBC	
	System Memory	refer to SBC	
Storage	Hard Drive	1 x 2.5" SATA HDD Space	
	CompactFlash®	1	
System Function	USB 2.0	4	2
	Ethernet	1	2
	RS-232	1 + *2	1 + *2
	LPT	*1	N/A
	Display	1 x VGA	
	Audio	*3 x Audio jack	1 x AC-KIT08-R10
	Wireless	N/A	*1 x 802.11b/g/n
	Expansions	1 x PCI-104	
Power	Power Input	12VDC in, AT mode only	
Reliability	Mounting	Desktop, wall mount	
	Operating Temperature	0°C ~ 50°C	
	Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis	
	Operating Vibration	Meet MIL-STD-810F 514.5C-1	
	Weight (Net/Gross)	1kg/3kg	

*Optional items
**The system with hard drive can meet the standard testing MIL-STD-810F 514.5C-1. ; the system with SSD/CF can pass MIL-STD-810F 514.5C-2

Dimensions *(Unit: mm)*



Packing List

1 x EBC-2101/EBC-2100 chassis
1 x 12V 60W power adapter (Part No.: 63000-FSP060DBAB1552-RS)
1 x Power cord
1 x Wall mount kit
1 x Screw set
1 x QIG
1 x One Key Recovery CD

Wall Mount bracket

Ordering Information

Part No.	Description
EBC-2100-R40	Embedded chassis for NANO-LX, compatible with 2.5" SATA hard drive, 60W power adapter with ERP and PSE certificates, sliver, RoHS
EBC-2101-R20	Embedded chassis for NANO-945GSE-N270, compatible with SATA hard drive, w/60W power adapter with ERP and PSE certificates, silver, RoHS
32000-114001-RS	2.5" SATA HDD cable with 2-pin WAFER 2.0mm power cable, for NANO-945GSE-N270 in EBC-2101, 20cm
19100-000027-RS	4010 system fan, +12V ball bearing
32200-000037-RS	44-pin IDE cable for 2.5" hard drive

ECN-581A-R10-D5251

Embedded Compact Chassis for NANO Series

Features

ECN-581A-R10-D5251

- Intel® Atom™ Processor D525 1.8GHz/1 MB L2 Cache
- One 204-pin DDR3 SO-DIMM SDRAM, system support up to 2GB

One Key Recovery

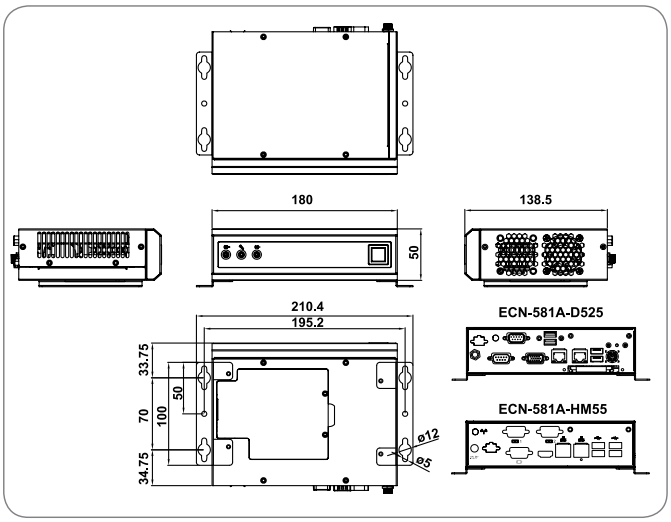
SATA Mini DOM

Specifications

Fanless

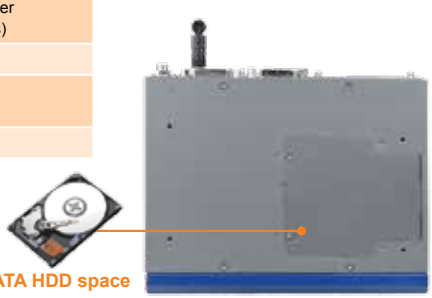
Model Name		ECN-581A-R10-D5251
Chassis	Color	Cool Gray+Blue
	Dimensions (WxDxH)	180 x 138 x 50mm
	System Fan	N/A
	Chassis Construction	Heavy duty metal
Motherboard	Motherboard Model	NANO-PV-D5251/D4521/N4551
	M/B Size	EPIC (165 x 115mm)
	Processor	Intel® Atom™ D525
	Chipset	ICH8M
	System Memory	1 x 204-pin DDR3 SO-DIMM support up to 2GB
Storage	Hard Drive	1 x 2.5" SATA HDD space
	CompactFlash®	1
System Function	PS2 (KB/MS)	1/1
	USB 2.0	4
	Ethernet	2 x Realtek 8111E PCIe GbE
	Serial Port	1 x RS-232 1 x RS-232/422/485 (Default RS-232)
	Display	1 x VGA
	Resolution	2048 x 1536 @ 60 Hz
	Audio	1 x Mic-in, 1 x Line-out, 1 x Line-in
	PCIe Mini Card	1 x PCIe Mini card slot (PCIe + SATA + USB) Reserved for Wi-Fi or IEI Mini DOM
Power	Power Input	12 VDC in
Reliability	Mounting	Desktop, wall mont
	Operating Temperature	-20°C~50°C (SATA SSD/CF) with Air flow* -10°C~50°C (Wi-Fi model with SATA SSD/CF) with Air Flow* *Ambient air speed pre IEC-68-2-2 standard
	Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis
	Operating Vibration	Meet MIL-STD-810F 514.5C-1 with SATA HDD MIL-STD-810F 514.5C-2 with SATA SSD/CF
	Weight (Net/Gross)	1.1kg/2kg

Dimensions *(Unit: mm)*



Packing List

1 x QIG
1 x Screw set
2 x Wall mount bracket
1 x Driver CD
1 x 12V DC 60W power adapter (with ErP and PSE certificates)
1 x Power cord
1 x 2dbi Wireless antenna (for wireless model only)
1 x One Key Recovery CD



1 x 2.5" SATA HDD space

Ordering Information

Part No.	Description
NANO-PV-D5251-R10	EPIC with Intel® Atom™ D525 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA II, RoHS
NANO-PV-D4251-R10	EPIC with Intel® Atom™ D425 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA II, RoHS
NANO-PV-N4551-R10	EPIC with Intel® Atom™ N455 1.66GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF II, audio and SATA II, RoHS
ECN-581A-R10-D5251	Embedded chassis for NANO-PV-D5251, Support Intel® Atom™ D525 Processor, DDR3 SO-DIMM memory, 12VDC, 60W power adapter with ERP and PSE certificates, Reflex Blue C + 8403C, RoHS, w/o MB
ECN-581AW-R10-D5251	Embedded chassis for NANO-PV-D5251, Support Intel® Atom™ D525 Processor, DDR3 SO-DIMM memory, 802.11b/g/n wireless, 12VDC, 60W power adapter with ERP and PSE certificates, Reflex Blue C + 8403C, RoHS, w/o MB

Note: Above Part No. is for chassis only without MB.